CONVERTIBLE SECURITIES — DEBT OR EQUITY?

By

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TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	ii
LIST OF TABLES	v
CHAPTER	
1. INTRODUCTION	1
Significance	1
Objectives	4
Methodology	4
Organization	5
2. THE ROLE OF CONVERTIBLE BONDS AND PREFERRED STOCKS IN FINANCIAL MANAGEMENT	10
General Characteristics	10
Relative Importance of Convertible Offerings	15
Reasons for Issuing Convertible Securities	18
The Use of Convertibles When the Firm Wants Debt or Preferred Stock	18
The Use of Convertibles When the Firm Wants Common Equity Capital	24
Additional Reasons for Buying Convertible Securities	37
Bonds vs. Preferred Stock	39
3. THE ACCOUNTING PERSPECTIVE	50
Selected General Theories of Accounting	54
Convertible Securities from the Accounting Viewpoint	65
Opinions of the Accounting Principles Board	70
4. DEBT VERSUS EQUITY	83
Criteria for Classification as Debt or Equity	86
Bargaining	86
Legal Status and Investment Character	88
Dilution of Earnings Per Share	89
Weston's Senior Versus Residual Classification	90

TABLE OF CONTENTS (continued)

CHAPTER		Page
4 (continued)		
	Maturity Value and Maturity Date	91
	Legal Distinction	91
	Value of Interest	94
	Eventual Conversion or Liquidation	95
	Some Other Factors	95
	Consolidated Set of Decision Factors	96
5	EMPIRICAL DATA ON CONVERTIBLE SECURITIES	101
	Evaluation	127
	Maturity Date	127
	Claim on Assets	138
	Claim on Income	140
	Voice in Management	141
	Maturity Value	141
	Intent of the Parties	144
	Pre-emptive Right	148
	Name of Security	149
	Conversion Features	150
	Potential Dilution of Earnings Per Share	150
	Right to Enforce Payments	153
	Good Business Reasons for Issuing	154
	Identity of Interest Between Creditors and Owners	156
6	SUMMARY AND CONCLUSIONS	160
APPENDIX		179
BIBLIOGRAPHY		183
BIOGRAPHICAL SKETCH		187

LIST OF TABLES

Table		Page
2-1	OUTSTANDING CONVERTIBLES 1948-66	17
5-1	NEW BOND ISSUES 1968	102
5-2	ISSUE SIZE AND TOTAL AMOUNT OF 75 CONVERTIBLE ISSUES	104
5-3	RISK RATING OF BOND ISSUES	105
5-4	INTEREST RATES WITH AND WITHOUT CONVERSION FEATURE	106
5-5	CUMULATIVE PROVISION OF CONVERTIBLE PREFERRED STOCK	108
5-6	PURPOSE OF CONVERTIBLE PREFERRED STOCKS	109
5-7	AVERAGE YIELD OF CONVERTIBLES VS. COMMON	110
5-8	STRAIGHT DEBT VALUE OF CONVERTIBLES	112
5-9	MARKET VALUE OF CONVERTIBLE BONDS DECEMBER 13, 1968	113
5-10	CONVERSION PREMIUM	115
5-11	INCREASE IN COMMON STOCK UPON FULL CONVERSION	117
5-12	CALL PROVISION OF CONVERTIBLE SECURITIES	119
5-13	CALLED CONVERTIBLE BONDS 1968	120
5-14	TIMING OF CONVERSION BONDS	122
5-15	TIMING OF CONVERSION PREFERRED STOCKS	123
5-16	COMMENTS ABOUT CONVERTIBLE ISSUES	124
5-17	SINKING FUND PROVISION	126
5-18	RIGHTS OFFERING	126
5-19	MATURITY DATES	137

LIST OF TABLES (continued)

Table		Page
5-20	PRIMARY MOTIVATION FOR ISSUANCE OF A CONVERTIBLE SECURITY	145

CHAPTER 1

INTRODUCTION

Significance

The significance of this study is based primarily upon the common accounting convention of classification. The usual statement of financial position shows accounts placed in major categories of the following pattern: on the left-hand side assets, with sub-classifications of current assets, investments, intangible assets, and fixed assets; on the right-hand side, equities, divided into two major categories, liabilities and owner's equity, with the liabilities further classified into current and long-term. Despite some widespread disagreement among accountants as to where a particular item should be shown on the statement of financial position, any system of classification indicates that the data to be classified has certain discernible characteristics which support the selected classification. Therefore, it is important that accountants be able to point to the similar or dissimilar characteristics of other accounting data which result in a particular classification and to the factors which distinguish one classification from another. For example, current liabilities are distinguished from long-term liabilities on the basis of time. Current liabilities are those which are payable within one year or operating business cycle of the firm. Therefore, an account which is due in 30 days, for example, is classified as a current liability.

While many accounting transactions are not nearly so easily classified as the above illustration, most of the grey areas have been sufficiently discussed and debated that a general, though far from unanimous, consensus has been reached as to the controlling characteristics for classification purposes. However, convertible securities represent an area which appears to have almost complete agreement among accountants as to classification but which has had little discussion about its characteristics. Thus, convertible securities seem to have been traditionally classified according to the following rationale. If a convertible security is a convertible bond then the word "bond" is the clue that this is a liability because bonds generally are liabilities. Likewise, if the convertible security is convertible preferred stock then the word "stock" indicates that this is a part of owner's equity because stock is normally classified as owner's equity. The name, not the characteristics, is the controlling influence.

This study also has significance for the more basic question of the appropriateness or necessity of distinguishing between liabilities and owner's equity, and, assuming that a distinction is necessary, the factors which should be evaluated in making that distinction. Accounting journals and textbooks contain frequent reference to the entity concept, which is expressed as the need to account for the activities of the business apart from the activities of the owners. This is considered to be a basic concept or postulate of accounting.

Yet, the common classification patterns, with the major breakdown between liabilities and owner's equity, are a rather clear manifestation of the proprietary concept.

It is not intended, nor is it within the scope of this study, to make any normative judgment concerning the merits of these basic concepts of accounting. Nevertheless, it will be useful to show how convertible securities, and for that matter all accounts on the equity side of the statement of financial position, are directly influenced by the choice of which concept to follow and the particular interpretation of the selected concept.

The study will proceed on the assumption, which will be treated later, that the proprietary concept is the concept generally followed by accountants. According to that concept creditors and owners are significantly different. Therefore, the characteristics of transactions which determine their classification are of major significance. The entire debt and capital structure of the business is affected by the evaluation of those characteristics.

The study is also timely as a result of recent actions by the Accounting Principles Board of the American Institute of Certified Public Accountants. In December, 1966, the Board issued an opinion which stated that under certain conditions a prescribed portion of the price of convertible bonds should be classified as paid-in capital. After one year, in which there was still little discussion in the accounting literature, the Board suspended the previous

opinion, at the request of several large investment bankers, while it conducted further study. After another year the Board issued a new opinion which renounced the 1966 opinion.

Objectives

There are two major objectives of this study. The first objective is to test the hypothesis that convertible bonds and convertible preferred stocks have sufficient common characteristics for them to be placed in the same major position statement classification rather than being classified as debt and owner's equity, respectively. The second objective is to test the hypothesis that both convertible bonds and convertible preferred stocks should be classified as equity rather than debt. In order to test these two hypotheses it will be necessary to establish the characteristics of convertible securities and the factors to be considered in determining whether a transaction is debt or equity. These two points may be considered as additional objectives, or as a part of the two major objectives.

Methodology

This study will begin with a search of the literature of accounting, corporate finance, and security analysis in an effort to determine the underlying rationale of convertible securities. The next step will be to establish, from accounting, finance, and legal sources, the factors to be tested in determining the debt or

equity nature of a financial interest. The various financial statistical publications and the Standard and Poor Compustat tape will be used for the purpose of collecting empirical data concerning convertible securities. The data thus collected will be evaluated on the basis of the factors prescribed for determining debt or equity.

There have been other empirical studies conducted in the past which were primarily concerned with why convertibles were issued and the volume of such issues. This study is much less concerned with why they are issued than with the nature of such securities, but, those studies will be referred to in establishing the rationale of convertibles and for comparison with the current characteristics of convertible securities.

Once the data has been accumulated and evaluated on the basis of the test factors it should be possible to draw certain conclusions concerning the stated hypotheses.

Organization

This is an accounting-oriented study which is primarily concerned with determining the appropriate statement of financial position classification of convertible securities. Accounting treatment rules, however, are not developed in isolation from other disciplines and in the case of convertible securities it seems particularly appropriate to consider the views of writers in the areas of corporate finance and security analysis. These writers have long discussed convertible

securities, whereas accounting writers until recently have given only brief mention to them. Therefore, Chapter 2 will provide a summation of the views expressed by several writers in order to develop the underlying rationale for issuing securities convertible into common stock.

Chapter 2 will serve to establish the general characteristics of convertible securities, their relative use as a source of new capital for the corporation, the asserted reason or reasons for issuing such securities, and from the investor's standpoint the reasons for buying convertibles. Included in the discussion of those factors will be some reference to the comparative cost and risk involved in issuing convertibles as compared to non-convertibles.

In addition to the development of general characteristics which will be drawn upon and evaluated at a later point, Chapter 2 will include a test of the hypothesis that convertible bonds and convertible preferred stocks have sufficient common characteristics for them to be placed in the same major classification on the statement of financial position.

Chapter 3 will be concerned with establishing the accounting perspective of convertible securities. A study of the characteristics of those securities in an effort to determine whether they should be classified as debt or equity would obviously have no value in an accounting system which does not make a distinction between debt and equity. Therefore, it will be necessary to review the more

important aspects of the two most popular general theories of accounting, the entity theory and the proprietary theory, and the various interpretations of each, in order to determine the significance, if any, of classification. Evidence will be presented to show which of the theories is most commonly adhered to by practicing accountants.

The views of the Accounting Principles Board will be given particular attention in Chapter 3. During the past two years the Board has issued a series of opinions dealing with convertible securities from the standpoint of earnings per share calculations and the treating of a portion of the proceeds of a convertible bond issue as paid-in capital on the statement of financial position. The views of the Board will constitute a major portion of the discussion of accounting views because, as has been suggested, accounting writers generally have given only brief mention to convertible securities. The views of other writers, however, will be incorporated into the study as a supplement to the views of the Board whenever appropriate.

In order to make a valid and supportable judgment concerning the classification of convertible securities as either debt or equity on the statement of financial position it is necessary to understand what constitutes debt and equity. Statements of financial position have long reflected the major categories of liabilities and owner's equity. The implication is that accountants, as well as others

involved in the preparation of such statements, have sufficient knowledge to recognize which category is appropriate for a particular transaction and that the factors to be evaluated in determining debt or equity have been well established.

Chapter 4 will be devoted to a study of accounting, finance, and legal sources in order to determine whether there is presently an agreed upon set of factors which distinguish debt from equity. If not, such a set will be tentatively developed to serve as a frame-of-reference for the collection and evaluation of empirical data relating to convertible securities, which is the purpose of Chapter 5.

In addition to collecting evidence to support a particular classification on the basis of the framework established, Chapter 5 will also be concerned with relating the empirical data to the asserted characteristics described by the finance writers in Chapter 2. Therefore, it will be necessary to make a determination of such factors as comparative risk and yield between convertibles and non-convertibles, the comparative cost to the corporation and management intent with respect to the securities as evidenced by the prescribed conversion terms, the potential increase in common stock upon conversion, and the speed with which conversion occurs.

Once the characteristics of convertible securities have been established and the data concerning those securities collected and evaluated on the basis of the test for debt or equity, some conclusions

about the hypotheses should be possible. Chapter 6 will serve to summarize the study and to draw those conclusions.

CHAPTER 2

THE ROLE OF CONVERTIBLE BONDS AND PREFERRED STOCKS IN FINANCIAL MANAGEMENT

General Characteristics

The purpose of this chapter is to bring together the viewpoint of several writers in the field of corporation finance and security analysis along with some theoretical and empirical support for those viewpoints. This information will provide worthwhile background and support for later parts of the study. Since this study of convertible securities is primarily concerned with the accounting implications of those securities, it appears that a comprehensive evaluation of corporation finance and security analysis is not necessary.

Corporate securities which are convertible into another form are by no means new. According to Dewing they have existed almost from the beginning of corporate enterprise. He points out that while there are no characteristics common to all such securities, that "Generally speaking, however, convertible securities are issued in a more secure, less speculative form--a form of security with a fixed or limited income return--and are convertible at the owner's request and under certain clearly specified conditions into some less secure, more speculative form of security, carrying the possibility of an increased return."[1] The conversion feature has been

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[1] Arthur Dewing, Financial Policy of Corporations (4th ed., New York: Ronald Press, 1941), p. 144.

applied to a wide variety of situations in the past. For example, bonds convertible into preferred or common stocks, secured bonds into debentures, preferred stock into common, stock into bonds, class A stock into class B, etc. However, in the current literature the term generally refers to bonds or preferred stock which are convertible into common stock. This is also the general definition which will be attached to the term throughout this study. The other types of convertibles are rare exceptions which would have little, if any, bearing on the outcome of this study.

Contrary to the viewpoint expressed by Dewing, especially in conjunction with the current general definition, a minimum of two universal characteristics in addition to the conversion privilege itself, are apparent in convertible securities. The first is the presence of financial terms for the conversion of the bonds or preferreds into common stock. Granted, these terms are not universally common, however, such securities always have explicit terms for conversion. The conversion factor may be expressed as a price or as a ratio. For example, a preferred issue may have the conversion terms expressed as one share of $100 par preferred convertible into common at a price of $50, or as one share of preferred convertible into two shares of common. Whichever form is followed the result is the same. That is, the number of shares of common stock available, to the holder upon conversion, per bond or preferred share.

Three important practical limitations should be noted in connection with the conversion price or ratio. First, convertibles are bought and sold on the expectation that the market price of the common stock will increase; therefore, the conversion price should be above the existing common stock market price at the time of issuance. Otherwise the company would be better off selling common stock directly. In the situation where the corporation believes that a large issue of common stock would glut the market, thus depressing stock prices below the then existing level, the conversion price may be set, as a minimum, at the then existing market price.

The second limitation concerns par value common stock. If the common stock has a par value it may be illegal to issue it at a price below par and in any case the holder would be subject to an assessment for the difference. Thus, the conversion price should always be above the par value of the common stock into which the senior securities are convertible.

The third limitation is simply that the conversion price should have a reasonable relationship to market price of the common stock at the time of issuance. If the conversion price is set so far above the then existing market price of the common that there is little expectation that the conversion price will ever be reached, the conversion feature loses its significance. The corporation might just as well issue a standard bond or preferred stock because no rational buyer would be willing to pay a premium for a privilege which is

likely to be unrealizable, at least in the foreseeable future.

The second universal characteristic of convertible securities is the call provision. This is the right which the corporation has to redeem the outstanding bonds or preferred stocks after giving a call notice, usually 30 days. In his survey of convertible subordinated debentures, Broman found, among other things, that "An analysis of the call provision indicated it to be a universal part of the issues studied. In only three cases was there a provision for a delay in inception."[2] In his opinion the immediate call provision of convertible bonds provided the corporation with greater flexibility than would be the case with standard bonds where the call provision is frequently delayed for several years.

His findings are supported by a survey made by Weston and Brigham of convertible bonds issued between 1961 and 1963. They found that " . . . all the bonds had essentially the same call provisions--they were callable immediately after issue with the call premium starting at the coupon interest rate and declining by $\frac{1}{4}$ percent per year to par."[3]

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[2]Keith L. Broman, "The Use of Convertible Subordinated Debentures by Industrial Firms, 1949-59," Quarterly Review of Economics and Business, Vol. III (Spring, 1963), p. 68.

[3]J. Fred Watson and Eugene F. Brigham, Managerial Finance (2nd ed., New York: Holt, Rinehart and Winston, 1966), p. 542.

The call provision of convertible securities has a significant use potential which is not present in non-convertible securities. With non-convertible securities the call provision is employed by the corporation to redeem outstanding obligations by the payment of cash. In a later section of this study evidence will be presented to show that the call provision of convertible securities may be used to force conversion of the senior securities into common stock.

A third common, though not universal, characteristic of convertible securities is their availability to common stockholders on a preference basis because of the pre-emptive right of the common stockholders. This is a well-known right which permits present stockholders to participate ratably in any new issue of common stock. They can, thereby, protect their existing voting power, their interest in the assets and their share in the earnings of the corporation. Convertible securities present a dilution threat to common stockholders and therefore evoke the pre-emptive right. According to Pilcher, "The pre-emptive right of common stockholders to subscribe to senior issues convertible into common shares is a time-honored principle in the United States. Shareholders have a pre-emptive right to subscribe for convertible obligations to the same extent that they would have a right to subscribe for the shares of stock into which securities are convertible."[4] In addition he refers

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[4] C. James Pilcher, Raising Capital with Convertible Securities, Michigan Business Studies, Vol. XII, No. 2 (Ann Arbor: University of Michigan, Bureau of Business Research, 1955), p. 96.

to a New Jersey case in which the court held that an issue of convertible bonds amounts to an issue of common stock and, therefore, the pre-emptive right must be recognized.

It is clear that to the extent that the pre-emptive right is present for new issues of common stock it is present for convertible issues. The importance of this right will become apparent once the purpose of issuing such securities, and the extent of conversion, is realized.

Relative Importance of Convertible Offerings

Accountants have long subscribed to the concept of materiality; therefore before proceeding with this study of convertible securities it seems appropriate to consider the relative importance of those securities as a source of new capital. There is no uniform test of what constitutes a material fact, thus reliance must be placed upon subjective evaluation. Nevertheless, several writers have concluded, on the basis of studies conducted, that a significant, and increasing, portion of new capital is raised by issuing convertible securities.

One such study was made by Pilcher of all new public offerings of United States corporate issues over $300,000 during the period 1933 through 1952. He found that 9.3 percent of all bonds were convertible while 35.3 percent of preferred stock issues were convertible. For private placements, which represented approximately 55 percent of all issues, the respective percentages were 0.5 and 8.2. The pre-emptive right was considered to be an important

factor in accounting for this difference between public offerings and private placements.[5]

The above percentages do not tell the whole story since dollar amount should also be considered. Lindsay and Sametz point out that for the period 1900-1943 over $9 billion of convertible bonds were issued. They say that this was "about 12 percent of the total value of all bond issues."[6] More important, they believe, is the fact that for industrials, convertibles accounted for 20 percent of the bond issues. Furthermore:

> That proportion has been growing in recent years as industrials have resorted to income debentures and subordinated debentures, most of which are convertible. Probably one third to two fifths of all industrial bonds issued in recent years have been convertibles. An average of 14 percent of all corporate bonds, in dollar amount, issued between 1955 and 1959 were convertible; in 1959, 26.6 percent of the number of all listed new issues were convertibles;[22] remembering that most utility issues are not convertible and that railroads issue few new bonds, it is clear that this 26.6 percent of the number of all issues probably represents well over 50 percent of the number of industrial issues and over 25 percent of the dollar amount of all industrial bonds issued.[7]

This contention is borne out by data selected from the Compustat tape. Table 2-1 presents information about the number and amount of

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[5] Ibid., pp. 5-8.

[6] Robert Lindsay and Arnold W. Sametz, Financial Management: An Analytical Approach (Homewood: Richard D. Irwin, Inc., 1963), p. 380.

[7] Ibid., p. 380. Their footnote 22 refers to: Forty-first Annual Report of the National Bureau of Economic Research (New York, May, 1961), Table 11, p. 65.

TABLE 2-1

OUTSTANDING CONVERTIBLES 1948-66

YEAR	NUMBER OUTSTANDING	PERCENT TO 1948	AMOUNT OUTSTANDING (MILLIONS)	PERCENT TO 1948
1948	64	100	626	100
1949	66	103	609	97
1950	60	94	599	96
1951	68	106	738	118
1952	75	117	1,070	171
1953	77	120	1,340	214
1954	73	114	1,248	199
1955	75	117	1,377	220
1956	83	130	1,595	255
1957	104	162	2,074	331
1958	115	180	2,126	340
1959	114	178	2,082	333
1960	113	177	2,013	322
1961	125	195	2,138	342
1962	131	205	2,365	378
1963	139	217	2,545	407
1964	139	217	2,690	430
1965	142	222	2,902	464
1966	163	255	3,701	591

SOURCE: Compiled from information provided by Compustat. (Sample of 629 companies.)

outstanding convertible securities over a nineteen year period. The data presented is a combination of bonds and preferred stocks. It does not reflect a comparison of convertibles with non-convertibles but simply the pattern of growth exhibited by convertibles and was based on a sample of 629 companies.

Reasons for Issuing Convertible Securities

The Use of Convertibles When the Firm Wants Debt or Preferred Stock

Senior securities which are convertible into common stock have played a role in corporate financing for a long time and as was shown in the previous section this role seems to be growing. The use of such instruments gives rise to several questions. Why do firms issue such securities? Why not issue straight bonds, preferred stocks or common stocks? Are such securities really bonds and preferred stocks or are they a form of common stock? Why do buyers like such securities?

There is rather widespread agreement among writers in the field that a firm sells convertibles for one of two primary reasons. Either the firm wants to increase residual equity capital and decides that convertibles are the most advantageous way of bringing about that result, or, the firm wants to increase its debt or preferred stock and discovers that the conversion feature is necessary to make the security sufficiently marketable at a reasonable interest or dividend rate.

Prior to World War II the second reason was the most common motivation for convertible issues. However, it should be pointed out that convertibility was not merely a device resorted to by weak firms. This type of security, as Dewing has stressed, was used by some of the strongest and most ably managed corporations.[8] Despite this, the rationale underlying the issuing of convertibles was not usually the creation of equity capital, rather it was to make the bonds or preferred stock more attractive, thereby increasing demand and obtaining a lower interest or dividend rate than would have been possible without the conversion feature.

Even after World War II, according to the survey conducted by Pilcher, which was referred to previously, it was found that "In 23 per cent of the companies responding to an inquiry, the desire to 'sweeten' a senior security was cited as the primary motive for the issuance of a convertible senior security."[9] Another 15 percent of the respondents asserted that "sweetening" the senior issue and raising equity capital were equally important. In contrast to this 38 percent who felt that the conversion feature was necessary to increase the marketability, Weston and Brigham found, in their study, that "27 per cent used convertibles to sweeten debt issues."[10]

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[8] Dewing, op. cit., p. 153.

[9] Pilcher, op. cit., p. 85.

[10] Weston and Brigham, op. cit., p. 542.

There are several other factors which may influence management's decision to attach the conversion feature to an issue of bonds or preferred even though conversion is not desired. The strength and extent of these factors have not been sufficiently tested empirically to say with any assurance that they have a certain degree of influence on the sale of convertible securities. Nevertheless these other factors should be briefly considered for any insight which they might provide into the rationale for issuing such securities. The sequence in which these factors are discussed should not be construed as an attempt to rank them according to importance.

First, the conversion provision may be used to permit the issuing company to reduce certain safeguards of senior securities, especially sinking fund requirements. The use of a sinking fund is fairly common with bond issues. The seller is required to establish and make regular contributions to the fund to insure that sufficient money will be available to redeem the bonds at maturity. The contributions are pro-rated over the life of the bonds and usually begin immediately after the sale. On the other hand, when the bonds are convertible it is not uncommon for the sinking fund contributions to be delayed for several years if they are required at all.

This last point is suggested by Lindsay and Sametz when they say that "To provide for retirement rather than automatic refunding of debt, industrial bonds almost always provide for sinking funds unless the issue is a convertible debenture."[11] Broman does not

[11] Lindsay and Sametz, op. cit., p. 379.

accept this conclusion because in his study of convertible subordinated debentures he found that a sinking fund was almost always required. However, he also found that "The usual sinking fund provision was less than 100 per cent, and all but one provided some delay before their operation commenced. The typical delay in the clauses of those issues studied was for ten or more years."[12]

Weston and Brigham give support to the view expressed by Broman because their study indicated that 88 percent of the convertible bonds contained a sinking fund provision which usually began after ten years' delay.[13]

One interpretation of the delay in the sinking fund provision is that the firm fully expects the bonds to be converted rather quickly into common stock. Therefore, there will be no need for funds at the maturity date. Another possibility is that even though the firm wants the bonds to remain outstanding it is beneficial to delay making contributions into a sinking fund until the assets acquired with the proceeds from the bond issue are fully productive and making a contribution to profits. In addition the delay makes more funds available for current operations than would otherwise be the case. This may be a significant benefit obtainable only with the conversion feature.

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[12]Broman, op. cit., p. 68.

[13]Weston and Brigham, op. cit., p. 541.

Another reason for using the conversion feature even though conversion is not desired is the current fashion in capital markets. At any given time certain kinds of securities or certain provisions seem to be especially attractive to investors. If investors desire a convertible security the corporation may have little choice but to include the conversion feature in order to market its securities. Pilcher illustrates this situation with some quotes from corporation executives. A vice president of a chemical corporation put it this way:

> There are fads in financial markets; in other words there are times when investment bankers advise that convertible preferreds are the fashion and are being sought by investors.[14]

Another executive pointed out that:

> While it was not our desire to include the conversion privilege, it appeared at that time to be advantageous so that the underwriters would find the issue more salable. You might say we were forced by circumstances and general market conditions to adopt convertibility.[15]

The above comments, while far from being conclusive, lend support to the view that the conversion feature may sometimes be used merely to stay in step with the market demand. If this is true then it would appear likely that the volume of new convertible security issues would fluctuate from year to year. The data previously discussed in connection with the volume and growth of convertibles was for a period of

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[14] Pilcher, *op. cit.*, p. 86.

[15] *Ibid.*, p. 87.

several years. The individual years showed substantial variation from the average. This is not conclusive evidence of a causal link between fashion and volume of convertibles but, rather, suggests the possibility.

A third factor which may influence the decision to employ the conversion feature exists whenever the firm believes that it can tap an otherwise unaccessible source of capital. There appears to be a significant segment of potential investors who want a security which combines the safety of a senior security with the speculative possibility of common stock. This group of investors may be willing to accept a lower interest in exchange for capital growth possibility. Therefore, if the corporation can tap this market financing costs may be reduced.

The most prominent buyers in this segment of the capital market are insurance companies, banks, and various pension and trust funds. These institutions are usually rigidly regulated and restricted as to the kind of investments which they can make. Insurance companies, for example, are permitted to invest only a relatively small percent in common stock. The conversion feature added to bonds allows the corporation to tap this source of capital.

Actually this particular incentive for using the conversion option applies equally when the firm wants to raise additional common equity capital and when it wants additional debt or preferred stock. More will be said about this factor when discussing the use of convertibles to raise equity capital.

All of the preceding reasons for issuing convertible securities: to "sweeten" an issue to make it more attractive, to relax sinking fund requirements or other restrictive provisions of the contract, to meet the current fashion trend, or to tap otherwise unaccessible sources of capital, are asserted to be of secondary importance in a majority of cases. According to the finance writers the most important reason is to increase common stock equity through a roundabout process. Attention will now be turned to that significant aspect of convertible securities.

<u>The Use of Convertibles When the Firm Wants Common Equity Capital</u>

The various surveys previously discussed indicate that in 62[16] and 73[17] percent of all cases studied the primary reason for issuing convertible securities was to raise common equity capital. In addition, the higher percentage was for more recent years, indicating a growth in importance of this reason. It is apparent that a majority of firms which issue convertible securities do not desire an increase in debt or preferred stock. Rather they want to issue additional common stock and, furthermore, they fully expect that to be the end result of issuing convertibles. This raises two important questions. If the firm wants to increase the common equity, why not issue common

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[16] *Ibid.*, p. 85.

[17] Weston and Brigham, *op. cit.*, p. 542.

stock directly? How can the firm be sure that conversion will take place?

Actually there are several reasons why a corporation selects to use a roundabout method of issuing common stock. These reasons will be discussed first, and at a later point the means for forcing conversion, if it does not take place voluntarily, will be considered.

One important reason for issuing convertibles is to avoid the downward price pressures on the firm's stock which would result from placing a large new issue of common on the market. This is especially relevant when the firm is attempting to raise such a large amount of capital that it would take a significant number of shares, relative to the number currently outstanding, to provide the desired capital.

A favorite example in the literature of convertible securities is American Telephone and Telegraph Company. Here is a company which, by almost any standard, is strong and sound. Yet, the management has chosen to make extensive use of convertible securities. Weston and Brigham point out that this company sold $10 billion of convertible debentures between 1946 and 1957 of which 80 percent had been converted by 1959. They suggested that the sale of straight debt would have unbalanced the financial structure of American Telephone and Telegraph and "on the other hand, if AT&T had simply issued large amounts of common stocks periodically, there would have been price pressures on its stock, because the market is slow to

digest large blocks of stock."[18]

Thus, by temporarily unbalancing its financial structure with additional bonds American Telephone and Telegraph Company was able to increase its common equity at a more favorable price than if common stock had been sold directly. In addition to avoiding serious financing problems, there was rapid and almost complete conversion. As Weston and Brigham pointed out, "By using convertible debentures, however, which provided for a lag of some six to nine months before they were converted into common stock, AT&T received relatively cheap money to finance growth."[19]

Pilcher refers to a company whose stock was currently selling at a market price of $42 per share. The corporation was convinced that in order to sell the necessary volume of new common stock the price would have to be about $35 per share. Rather than suffer this $7 reduction in market price the firm chose to issue convertible debenture bonds convertible at $45 per share. Thus, for this company the choice was between raising common equity at $35 or $45.[20]

Obviously, if the stock is sold at $35 more shares must be sold to raise the desired capital than if the stock is, in effect, sold at $45 per share. For illustrative purposes assume that the above corporation wanted to raise $5 million common equity capital. Assume further that the corporation has long followed the policy of paying

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[18] Weston and Brigham, op. cit., pp. 517-18.

[19] Ibid., p. 518.

[20] Pilcher, op. cit., p. 78.

$2 per share dividend on its outstanding common stock.

The direct sale of common stock at a price of $35 per share would require 142,857 shares to raise the required $5 million capital. The annual dividend for these new shares, at $2 per share, would amount to $285,714. On the other hand, by selling the convertible debentures and assuming that conversion takes place, there would be 111,111 new shares issued upon conversion. The dividend requirement would be $222,222 per year for these new shares. The company could maintain its dividend policy with an advantage of $63,492 per year.

The downward price pressure in the above example may have been unusually strong, but it is not unusual for such pressure to exist. Weston and Brigham found that "All companies indicated that common stock could have been sold at net prices ranging from 2 to 5 percent below the market price, the larger discounts being applicable to small firms and to firms needing large sums of money relative to the value of their outstanding shares."[21] Clearly, these firms were not issuing convertible securities because they could not sell anything else. They were selling convertibles because they wanted to get a better price for their common stock than would have been possible with a direct common stock issue.

Another reason for issuing convertible securities, which is somewhat related to the above price pressures and increased number of

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[21] Weston and Brigham, op. cit., p. 543.

shares, has to do with dilution of earnings. When a corporation undertakes to raise long-term or permanent capital there is probably an expansion program planned. The firm needs the money now while it may take months or years for the construction to be completed and for returns to be received on the invested funds. If the company sells common stock to finance the expansion the new and old shareholders must share the earnings from the old assets.

It is clear that until such time as the expansion begins to contribute to earnings there will be a dilution of earnings per share. The more shares the firm must issue to raise the desired funds, the greater will be the dilution. While this may not have any immediate effect on the corporation it is likely to make the old shareholders rather unhappy. Since market price is frequently geared to earnings per share their shares may lose value.

Furthermore, if the corporation does not have a fixed dividend policy, as previously discussed, the dividend per share will probably be reduced since the new shareholders would participate in the dividend distribution. The only way the company could maintain the same approximate dividend per share would be to retain less current earnings in the business or dig into past earnings. Either way the old stockholders will likely end up with diluted equity or lower dividends or both.

On the other hand, by issuing convertible securities the corporation can delay the issuance of new common shares until such time

as the new investment is in operation and making a sufficient contribution to the earnings of the corporation. Of course, this does not eliminate the reduction in earnings per share because interest or dividends must be paid on the convertible bonds or preferred stock. However, if the corporation issues convertible bonds the interest is deductible by the corporation for income tax purposes and the after tax cost may be such that earnings per share will be reduced much less than would be the case where additional shares of common were issued.

In the case of downward price pressures, it is apparent that convertibles provide an excellent alternative to issuing common stock at the lower price. However, in the case of earnings per share dilution, as a reason for issuing convertibles, things are not nearly so clear. Until the new investment begins contributing to earnings there is going to be dilution no matter which alternative is chosen. There will either be more shares to participate in the earnings or more interest expense to be deducted from earnings. It is impossible to say positively that one alternative is better than the other. Each must be analyzed to determine which alternative is most advantageous in a particular case.

For example, continuing the previously assumed case where, because of price pressures, it was necessary to issue 142,857 shares of common to raise $5 million, assume that the company was presently

earning \$4 million a year and had 1 million shares of common outstanding. The stock was earning \$4 per share. If the company chose to issue common stock directly the total outstanding shares would be 1,142,857 which would be earning \$3.50 per share.

Assuming that the company sold convertible bonds at an interest rate of 6 percent the annual interest would be \$300,000. After income tax, assuming a 50 percent rate, the net income would be reduced to \$3,850,000, assuming that the expansion has not yet had time to contribute to earnings. The earnings per share for the 1 million outstanding shares would be reduced from \$4 to \$3.85 rather than to \$3.50 when common stock was issued directly.

When financial managers believe that their stock is presently undervalued in the market another reason exists for issuing convertible securities rather than common stock. But, why should the stock be undervalued in the market, and why does management think the value will rise (which must be the case if conversion is to take place)?

Lindsay and Sametz suggest three reasons why a corporation may believe that its common stock is undervalued in the market:

1. A general cyclical stock market decline that sweeps all stock prices down, regardless of individual merit.
2. A few recent years of poor company or industry earnings that are in process of being reversed but meanwhile have caused the common stock to sell at distress prices.
3. The corporation is about to take off into a period of great expansion and earnings growth,

> and the market is likely to increase the multiple of earnings (or the price/earnings ratio) at which the stock sells.[22]

Pilcher thinks that expected growth is a particularly important factor in managements' belief that their stock is undervalued. He refers to correspondence from various corporate officials, one of which remarked:

> Because of our opinion that the . . . industry has a bright future, it was decided that the common stock of this corporation was undervalued. Therefore we elected to sell a convertible preferred stock carrying conversion privileges above the current market for the stock. This, in effect, resulted in the ultimate sale of common equity at a higher price than would have been possible otherwise.[23]

Thus, when a corporation is convinced that its stock is undervalued in the market convertible securities offer an advantageous alternative. From the viewpoint of the corporation it is certainly more desirable to have a delayed sale of common stock at a higher price than to sell stock directly at the current depressed prices. Of course, the management may be overly optimistic about the future and the conversion may never take place. Then the corporation will be stuck with debt or preferred stock when common equity was desired. If the corporation desires common equity then it must attempt to make a realistic appraisal of future earnings in order to make its decision concerning the use of convertibles. In addition the

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[22]Lindsay and Sametz, op. cit., p. 397.

[23]Pilcher, op. cit., p. 70.

conversion price must not be set so far above the present market price that it is not likely to be reached.

There are few statistics available to indicate the importance of expected growth or undervalued stock as a motivation for the issuance of convertibles. There are also, probably, many firms that are overly optimistic about the future. Therefore, the only general statement that can be made is that if the firm has good reason to believe that its stock is undervalued and if the firm wants to increase its common equity, then convertibles provide an opportunity to sell common stock on a delayed basis at a favorable price. The firm would have the advantage of issuing fewer shares and minimizing dividend requirements. The disadvantage is that the evaluation of the future may not come about and the company would have on its hands a type of security which it did not desire.

A corporation may also decide to issue convertible bonds or preferred stocks in order to penetrate that segment of the capital market which is unwilling or unable to participate in a direct common stock issue. This reason was previously mentioned in conjunction with those firms which want debt or preferred stock and need to make those issues more attractive. However, it is probably a more important reason in the situation where the company wants to indirectly increase its common equity.

The demand for convertible securities may be somewhat a matter of fashion or a fad. Whatever the reason there is, apparently, a

substantial group of investors who prefer a security which combines the safety of a bond or preferred stock with the speculative characteristic of common stock. The face value of a convertible usually has much, but not all, of the same protection as a non-convertible issue of the particular company. Once the conversion price is reached the convertible securities assume the speculative nature of common stock.

In a later section more will be said about convertibles from the investor viewpoint and in a later chapter the possibility of separating the value of convertible securities into two parts: the value as a straight security and the equity value. At this point all that is necessary is the recognition that some investors want and will purchase convertible securities and the corporation may issue such securities in order to tap that market.

The above comments refer to the individual investors who may not fully understand the complexity of convertible securities. However, there is another group of investors interested in convertibles, but not in common stock as such, who no doubt thoroughly understand their speculative nature. This is the institutional investors such as life insurance companies, some pension funds, and banks. These institutions are highly regulated and are severely restricted in their portfolio management, especially as to the amount of common stock which they can hold. They are free, however, to invest in convertible bonds, thus, providing corporationswith an

excellent potential market for such securities.

It was pointed out previously that for private placements, which presumably would reflect institutional investors, only .5 percent of bond offerings and 8.2 percent of preferred stocks were convertible.[24] Thus it might appear that these investors are not particularly interested in convertibles, yet Weston and Brigham found this to be one motivation for convertible issues. They said that "The investment officers of many of these institutions are thought to feel that it would be desirable to have more equities than regulations permit. Convertible bonds provide these intermediaries with a method of indirectly holding more equities than the law permits."[25]

Thus, these institutions not only understand the speculative, or equity, nature of such bonds but that may be precisely why they acquire them. Without violating the laws governing their particular institution they can hold what the regulatory agencies and accountants regard as debt but which they know provides an opportunity for capital gain. The institution can continue to hold the convertible, once conversion parity has been reached, and obtain capital growth in line with the growth of common stock market price. Of course, they are not allowed to convert, except on a temporary basis, which may hinder the corporation in obtaining its goal of an indirect common stock issue.

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[24]Pilcher, op. cit., pp. 5-8.

[25]Weston and Brigham, op. cit., p. 544 (emphasis added).

If the institution wants to realize its capital gain it can either sell the bond at the higher price or it can convert and immediately sell the stock. Likewise, if the corporation calls the bonds the institution can sell to someone who will convert or convert and sell the stock. Either way the institution has earned a capital gain on a so-called debt security.

Another reason why corporations may issue convertible securities, especially bonds, when they eventually want to increase the common equity is simply the flotation cost. These costs, which include such things as registration with the Securities and Exchange Commission, underwriting fees and distribution charges, are usually smaller for bonds and preferred stocks than for common stocks. One source reports that for the period 1951-55 the flotation cost for 615 issues, expressed as a percent of gross proceeds, was as follows: 1.49 percent for 265 bond issues sold, 4.34 for 129 preferred stocks, and 10.28 for 230 commons.[26]

The flotation cost for convertibles may not be exactly the same as the average for all bonds and preferred stock but this gives an idea of the difference in cost among the various issues. It is interesting to note that Pilcher found four cases where "the investment banker paid the corporation for the privilege of underwriting the convertible issue."[27]

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[26] Cost of Flotation of Corporate Securities, 1951-1955, Securities and Exchange Commission (Washington, D. C.: 1957), pp. 37-40.

[27] Pilcher, op. cit., p. 81.

Of course in evaluating the total cost of capital the corporation must consider several variables in addition to flotation cost.[28] However, once the corporation has decided that it wants to increase common equity and the choice now is between a direct issue and a convertible issue of bonds the difference in flotation cost may be a decisive factor. If the firm is fairly certain that conversion will occur and flotation costs will be 5 to 8 percent less with convertible issues, a strong motive certainly exists for the issuance of convertibles.

There are undoubtedly several other factors which, at one time or another, motivate corporate management to decide upon a convertible issue when an increase in common equity is desired. However, the reasons discussed above are the most common and adequately illustrate the situations where convertibles may be used advantageously. For convenience they will be restated:

1. To avoid the downward price pressures on the firm's stock which would result from placing a large new issue of common on the market.

2. To avoid dilution of earnings and increased dividend requirements while the expansion program is getting underway.

3. To avoid the direct sale of common stock when the corporation believes that its stock is currently undervalued in the market.

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[28] In the present discussion it does not seem necessary to go into an analysis of those variables. For those who are interested, the topic is treated extensively in G. David Quirin, The Capital Expenditure Decision (Homewood: Richard D. Irwin, Inc., 1967), pp. 95-160.

4. To penetrate that segment of the capital market which is unwilling or unable to participate in a direct common stock issue.

5. To minimize the flotation cost.

Additional Reasons for Buying Convertible Securities

The previous discussion of why corporations elect to issue convertible securities provides considerable insight into investor motivation. In many instances the corporation felt compelled to issue convertibles because that was what the market demanded. Among the reasons for issuing convertibles, which simultaneously would be reasons for buying, were: (1) convertible securities considered to be fashionable at the moment; (2) investors are attracted to a security which combines protection with the opportunity for capital growth (even though they may not fully understand the risk involved); and (3) many institutions, such as insurance companies, desire to increase their equity holdings but are prohibited from doing so by regulations.

In addition to these reasons inventors may desire convertibles as a hedge against stock market declines or because of the lower margin requirements. Cohen and Zinbarg explain how the convertible operates as a hedge:

> A "convertible hedge" refers to a transaction in which a bearish investor buys a convertible and simultaneously sells short the common stock into which it may be converted. If the stock declines in price, as he anticipates, the price of the convertible declines less than proportionately

> (he hopes). He then sells the convertible at a loss, buys common at the depressed price, and covers his short sale at a greater profit than the loss on the convertible. If he is wrong about the market, and a rise in the stock's price confronts him with a potential loss on the covering of the short sale, he has two alternatives. If the price of the convertible has risen, he can sell it at a profit which offsets the short-sale loss in whole or in part. Indeed, the price rise of the convertible may exceed that of the stock, resulting in a net profit. At the very worst, if the price of the convertible has not risen, he can exercise his conversion privilege and use the shares received to cover the short sale. His maximum loss will be the difference between the cost of the convertible and the proceeds of the short sale, namely the "premium" which he paid over conversion value. Thus, the main purpose of a "convertible hedge" is to profit from a declining stock market at a predetermined risk.[29]

In those rare cases where the price of the convertible is below the conversion parity and the conversion privilege is immediately operative a process similar to the above called "arbitrage" will motivate buying the issue. This situation provides a risk-free opportunity for a small profit. This is accomplished by: (1) buying the convertible issue and selling the common stock at the same time; (2) immediate conversion into common; (3) using the common to cover the sale.

The difference in margin requirement for buying common stock and bonds or preferred stocks may also provide an incentive for investing in convertibles. In the past a person desiring to buy on margin could legitimately borrow at least 75 percent of the convertible

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[29] Jerome B. Cohen and Edward D. Zinbarg, Investment Analysis and Portfolio Management (Homewood: Richard D. Irwin, Inc., 1967), footnote 6, p. 418.

purchase price from a bank. On the other hand, the Federal Reserve's variable margin requirements on common stock was such that 50 percent or less could be borrowed. In early 1969, the margin requirement for common stocks and convertible bonds was 70 and 50, respectively. It would appear that such a vast difference in margin requirements could have had significant influence upon investment decisions in the past.

Bonds vs. Preferred Stock

One objective of this study is to test the hypothesis that convertible bonds and preferred stocks should receive similar accounting treatment in reporting the capital structure of the firm. Despite the fact that this hypothesis has not yet been considered, the term "convertible securities" has been used repeatedly throughout this chapter. The implication, of course, being that the term covered both convertible bonds and convertible preferred stock and that a discussion of one was automatically a discussion of the other. This was in keeping with the approach of financial writers who usually group the two securities together.

Since these writers rarely explain, in their discussion of convertibles, why they analyze all convertibles together it is necessary to consider their views toward non-convertible debenture bonds and preferred stocks. As a further refinement special attention will be given to subordinated debentures which, it appears, are the most common form of convertible bonds. For example, Broman, in

the study referred to previously, elected to investigate only convertible subordinated debentures.[30] Weston and Brigham in their study, also referred to previously, found that all but two of the convertible issues were subordinated.[31] In addition, a recent issue of Moody's Bond Survey described 35 prospective taxable-bond offerings of which all 12 of the convertible issues were subordinated debentures.[32]

Subordinated debentures are bonds whose claim to assets comes after other specified senior debt. Frequently the subordination is to all other creditors, in which case the claim to assets may be considered more nearly in the nature of a "first" preferred stock[33] than of a "last" debt.

From a legal point of view bonds and preferred stocks are two distinct kinds of securities. Bonds are debt and the interest is a tax-deductible expense. On the other hand, preferred stock is considered to be a part of the equity and the dividend payments are regarded as a distribution of earnings and are not a tax-deductible expense. In addition bondholders have a legal right to enforce the payment of periodic interest and the face value at maturity, a right which preferred stockholders do not enjoy. On the assumption

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[30] Broman, op. cit.

[31] Weston and Brigham, op. cit., p. 542.

[32] Moody's Bond Survey, Vol. 60, No. 23 (June 3, 1968), p. 638.

[33] Lindsay and Sametz, op. cit., p. 380.

that the legal viewpoint should not necessarily be the controlling influence the following discussion will be conducted from the point of view of the financial manager.

Lindsay and Sametz assert that preferred stocks issued in the last 25 years have almost uniformly been "cumulative, nonparticipating, callable, nonvoting, and preferred as to assets."[34] They believe that these features combined with other fairly standard protective provisions give the preferred a striking resemblance to bonds. As they see it, the typical protective provisions are as follows:

> 1. Restriction of size of dividends on common stock to provide liquidity for future preferred dividends.
> 2. Limitations on further issues of the same preferred or of new issues of securities (such as bonds) that would have prior preferences, by a requirement that the preferred must vote approval by more than a majority, usually two thirds, of such new issues or that certain financial ratios be satisfied.
> 3. In the event that dividends are passed, usually for two to six quarters, the preferred stockholders acquire voting power sufficient to elect a number of the members, sometimes a majority, of the board of directors of the corporation.
> 4. A statement about the preferreds' claim to assets, usually specifying that they are entitled to share the proceeds of assets in liquidation ahead of the common stock to the extent of the par or stated value plus dividend arrears.[35]

They conclude that "Clearly, these are bondlike preferred stocks."[36]

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[34] Lindsay and Sametz, op. cit., p. 386.

[35] Ibid., pp. 387-388.

[36] Ibid., p. 387.

Other writers, such as Johnson, also believe preferred stock is best regarded as quasi-debt. He points out that "one indication of the 'debt-like' position of preferred stockholders is that we bargain with them. In contrast, there should be no bargaining between the company and residual owners."[37] His reasoning is that the company does not have interests separate from the residual owners. Thus since bargaining implies two or more parties with different interest, with one party gaining what the other loses, there is nothing to bargain about when the interests are the same.

According to Johnson the bargaining area for debt and preferred stock "centers on provisions for retirement, claim on income, claim on assets, and voice in management."[38] He also asserts that these four provisions are what distinguish debt from equity.[39] The following discussion of those characterizing provisions will reflect the present writer's interpretation of Johnson's viewpoint.[40]

Maturity. A common feature of bonds is that they have specified maturity dates while preferred stocks do not. Since repayment of bonds is compulsory at maturity date a sinking fund provision is usually included in the bargaining between the corporation and investors. Despite the absence of a maturity date, provisions are sometimes

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[37] Robert W. Johnson, Financial Management (2nd ed., Boston: Allyn and Bacon, Inc., 1962), p. 480.

[38] Ibid., p. 482.

[39] Ibid., p. 135.

[40] The Johnson discussion of debt characteristics is ibid., pp. 425-445 and preferred stock is ibid., pp. 482-491.

made for the compulsory retirement of preferred stock.

The importance of the inclusion or omission of a maturity date can be diminished or disappear entirely when the intent of management is the voluntary retirement of bonds and preferred stock. In order to protect itself the corporation prefers to have the right to repay bonds at will rather than be forced to follow a predetermined schedule. Corporations often bargain with bondholders for the right to refund bonds at maturity date. They also often attempt to include a call provision in the bond issue. This enables the corporation to retire all, or part, of the bonds at will upon the payment of the face amount plus an agreed upon premium.

If the corporation is successful in acquiring the right to voluntarily repay or retire the bonds, and if the right is exercised, the specified maturity date is meaningless. Under these conditions bonds and preferred stock would be completely alike because preferred stock almost always includes a call provision. Maturity will occur when the firm decides to exercise the call.

<u>Claim on income</u>. The bondholders have a prior claim on income to the preferred stockholders, but both have claims prior to the residual owners. The claim on income in both cases is a fixed amount since, as a general rule, neither participates with the residual owners in distribution of earnings above the stated amount. The amount of the bondholders claim is expressed as a percentage of the face value of the bond while the preferred claim may be

expressed as a percentage of the par or a dollar amount.

Unless the bonds are income bonds, in which case there must be income for a claim to exist, the bondholders have a certainty of receiving interest payment. Because of legal provision the failure to pay bond interest is grounds for the bondholders to instigate bankruptcy proceedings against the corporation.

Preferred stock is usually cumulative, which means that if preferred dividends are not paid in any period, they accumulate and must be paid before any common dividend can be paid. This provision does not provide year to year certainty of receiving dividends but it does provide substantial long-run certainty in most cases. The common stockholders would probably become unhappy if they never received dividends and would likely push for corrective measures. Of course if the company was losing money the claim would be uncertain as would the bondholders' claim.

In addition to being concerned about the interest of common stockholders, many corporate directors feel that they have a moral obligation to pay preferred dividends if at all possible just as they have a legal obligation to pay bond interest. They also recognize that a continued failure to pay preferred dividends may create problems in future financing.

Claim on assets. Both bondholders and holders of stock which is preferred as to assets have a claim on assets prior to the residual owners. Some bonds are secured by specific assets; however,

debenture bonds and preferred stock have no specific assets pledged as security. They are protected only by the margin which exists between the assets and secured debt.

In the case of subordinated debentures, which are of special interest here, the claims of senior creditors, including ordinary debenture holders, must be settled before <u>any</u> payment is made on the subordinate issue. Such claims are immediately prior to the claims of preferred stockholders.

Debenture bondholders and preferred stockholders are willing to forego a specific claim on assets simply because they look to earnings to satisfy their claims. If they anticipate the necessity to press a claim against the assets to enforce their rights they would not, or at least should not, have made the investment.

<u>Voice in management</u>. Unless the charter of a corporation contains a specific provision to the contrary, the preferred stockholders are entitled to voting rights. Such a provision is usually included, thus limiting the preferred stockholder's voice in management to restrictions on dividend payments and future issues of equal or senior securities. This is the same right which bondholders normally obtain.

The bondholders and the preferred stockholders may obtain, through bargaining, the right to vote or to elect a specific number of directors upon the company's default of certain features of the contract. Some defaults which may give them voting rights are:

failure to pay interest or dividend; failure to maintain assets at a certain ratio to outstanding bonds or preferreds; and failure to make sinking fund payments.

The preceding comparison of non-convertible bonds and preferred stocks on the basis of maturity date, claim on income, claim on assets, and the right to a voice in management suggests that from the financial manager's viewpoint these securities have substantial similarity.

The discussion up to this point has been concerned with provisions which are incorporated to a varying extent in bonds and preferred stock. Thus the similarity of characteristics is a matter of degrees. The financial writers, however, have made a very specific comparison between bonds and preferred stock in the computation of the cost of capital.

Many writers do not devote any time to an analysis of the cost of preferred stock. They merely point out in a footnote or in one or two short paragraphs that the analytical procedure for preferred is similar to the procedure for bonds. Others treat common stock as the only equity capital which gives the impression that they consider preferreds to be like bonds.

Others, like Quirin, analyze both bonds and preferred stock and pointedly assert that the same procedure applies in both cases. He says that "From the point of view of the common stockholders, preferred stock represents an alternative source of senior funds

having many of the characteristics of debt but certain advantages in particular circumstances."[41] He also agrees with the point made previously, and for the same reasons, that a company will not casually decide to pass a preferred dividend.

According to Quirin[42] the cost of capital when raised by issuing bonds, when the firm receives the full face value, is the interest rate adjusted for tax deductibility of interest. The formula is simply

$$k=(1-T)R$$

where k is the cost, T is the tax rate and R is the rate of interest. A more complex formula is necessary when the bonds are sold at a premium or discount. In that case the formula is

$$k = \frac{(1-T)\left[R+\frac{1}{n}\ (P-Q_o)\right]}{\frac{1}{2}\ (Q_o+P)}$$

where P is the par value of the bonds, n is the number of years to maturity and Q_o is the sum received, net of all underwriting cost.

In his analysis of preferred stock he points out that:

> The cost of a straight preferred issue, like that of a debt issue, is most accurately calculated by using Formula (1) [a more general formula than given above] particularly when there is a sinking fund involved or when it is planned to call parts of the issue at specified dates. The conventional approximation treats preferred

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[41] Quirin, op. cit., p. 102.

[42] Ibid., pp. 100-101.

> as a perpetual obligation and the dividend as an interest payment which is not tax-deductible giving the formula
>
> $$k = \frac{D}{Q_o}$$
>
> where D is the annual dividend.[43]

Quirin also evaluated the cost of capital raised by issuing convertible securities. He treated convertible bonds and preferred stocks as a single source of capital and asserted that:

> Such issues, then, contain built-in future dilution (for the common stock) as an intrinsic feature, and are best regarded as an indirect way of selling common stock above the present market. Their cost should be evaluated as the higher of: (a) their cost calculated on the assumption that conversion does not take place and they remain as senior obligations in their original form, or (b) their cost when considered as if they were common stock, calculated from the formula for common stock cost, but substituting in the denominator the effective issue price on a common stock basis, i.e., the proceeds from each share divided by the number of common shares into which it may be converted.[44]

Weston and Brigham chose to view the cost of debt and preferred stock from a definitional standpoint. In each case the cost is that rate of return which must be earned on the debt or preferred stock-financed investments in order to keep unchanged the earnings available to common stockholders. For debt this is the interest rate and for preferreds it is the dividend rate or the dollar amount of dividend divided by the proceeds from the sale of a new issue of preferred

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[43] _Ibid._, pp. 102-103.

[44] _Ibid._, p. 111.

stock.[45] Of course, as they point out, the different tax treatment of interest payments and preferred dividends must be taken into consideration.

The evidence presented in this section makes it clear that from the viewpoint of many writers in the field of corporate finance it is appropriate for financial managers to treat debenture bonds and preferred stock as one kind of security. There are degrees of differences; therefore one may be more advantageous than the other under certain circumstances.

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[45] Weston and Brigham, op. cit., pp. 282-283.

CHAPTER 3

THE ACCOUNTING PERSPECTIVE

The previous chapter was concerned with establishing the viewpoint of financial writers toward convertible securities. Emphasis was placed upon the relative importance of convertible securities as a source of capital for corporations, the various reasons for corporations selling and investors buying such securities, and a comparison of the characteristics of bonds and preferred stocks from the corporation's viewpoint. The views of accounting writers were not considered and no effort was made to answer two basic questions. That is, what difference does it make whether convertible bonds and preferred stocks have similar characteristics and whether they are treated as debt or equity in the financial statements?

The purpose of this chapter is to explore the accounting literature which pertains to convertible securities in order to formulate tentative answers to the above questions, and to establish the accounting viewpoint toward convertible securities. Special attention will be given to the various publications of the American Institute of Certified Public Accountants and the American Accounting Association; partly on the assumption that these publications represent an influential segment of the accounting literature, and partly because it is only in the opinions of the Accounting Principles

Board that convertibles are discussed to any major extent. A search of the literature suggests that Grady was reflecting the traditional attitude of many accounting writers when he said that "since there is little controversy regarding accounting for equity capital, there is no need for lengthy comments."[1] If there has been little controversy regarding accounting for equity capital there has been, until the last two years, even less controversy regarding accounting for convertible securities.

Before dealing specifically with the cause of the recent controversy it will be worthwhile to consider certain points which pertain to accounting generally, and therefore to convertible securities. These points will be presented in summary form on the assumption that they reflect the views of most accountants.

The first point is simply the definition of accounting. While many definitions have been suggested, probably the most basic and most frequently cited definition is the one formulated by the Committee on Terminology in 1941 which stated that "Accounting is the art of recording, classifying, and summarizing in a significant manner and in terms of money, transactions and events which are, in part at least, of a financial character, and interpreting the results thereof."[2] For the present study the key words are

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[1]Paul Grady, Inventory of Generally Accepted Accounting Principles for Business Enterprises. Accounting Research Study No. 7 (New York: American Institute of Certified Public Accountants, Inc., 1965), p. 191.

[2]American Institute of Certified Public Accountants. Accounting Research and Terminology Bulletins. (Final Edition.) (New York:1961), Terminology, p. 9.

"classifying . . . in a significant manner."

The Committee chose not to amplify the definition which it put forth, thereby placing upon individual accountants the responsibility of determining whether the accounts in financial statements were properly classified. A committee of the American Accounting Association was more specific when it pointed out that "Classification, arrangement, and summarization should be employed for the purpose of indicating similarity, disimilarity, relative importance, and interrelationships among the data."[3]

That same committee also stressed the need for financial statements to be useful, especially to investors. The Committee asserted that "The underlying determinant of adequacy of disclosure in published financial reports is their usefulness in making decisions, particularly with respect to investment problems."[4] At another point the Committee said that if investors are misled or not advised of important matters the disclosure is inadequate. For example, "Statements may be misleading if they contain inappropriate classifications or descriptions, or improper emphasis."[5]

The importance of reflecting the viewpoint of investors was also stressed in the introduction to Accounting Research Bulletin

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[3]American Accounting Association, Concepts and Standards Underlying Corporate Statements, Supplementary Statement No. 8, 1954.

[4]*Ibid.*

[5]*Ibid.*

No. 43. As a result of the increasing use of the corporate system during the past fifty years "the problems in the field of accounting have increasingly come to be considered from the standpoint of the buyer or seller of an interest in an enterprise."[6]

Another concept which has widespread acceptance in the accounting literature is materiality. Rather than conduct a historical survey of the materiality concept, as was done by Reininga,[7] this point will be illustrated by some statements from accounting Research Study No. 7. In that study it is stated that:

> Accounting and auditing literature and pronouncements are replete with references to items and matters which are: material, significant, of substantial importance, substantial, materially distorting, immaterial, inconsiderable in amount, of little or no consequence, not significant, etc. . . . .
>
> The fact that no committee of the institute has defined the terms material, significant, or consequential merely serves to emphasize the fact that the problem involved is largely a matter of judgment to be exercised in the light of all the then-existing surrounding circumstances.[8]

The following general definition of the concept is suggested:

> A statement, fact, or item is material, if giving full consideration to the surrounding circumstances, as they exist at the time, it is of such a nature that its disclosure, or the method of treating it, would be likely to influence or to "make a difference"

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[6] Accounting Research and Terminology Bulletins, op. cit., Bulletin No. 43, p. 7.

[7] Warren Reininga, "The Unknown Materiality Concept," Journal of Accountancy (February 1968), pp. 30-35.

[8] Grady, op. cit., pp. 38-39.

in the judgment and conduct of a reasonable person.[9]

The purpose of the preceding discussion was to illustrate that certain basic concepts of accounting require an understanding of convertible securities. Since accounting is concerned with classification, and classification requires recognition of similarity and dissimilarity, it is essential that the characteristics of convertible bonds and preferred stocks be investigated. If they have similar characteristics they should be placed in the same classification. On the other hand, if the characteristics are different there may be sufficient justification for different classifications.

In addition, the evidence presented in the previous chapter indicates that convertible securities are probably "material" items on a statement of financial position, therefore an inappropriate classification may be misleading to present and prospective investors. Such a classification would defeat a basic purpose of published financial reports which is to provide useful information for investors' decision-making.

Selected General Theories of Accounting

Over the years several general theories, or concepts, have been advanced in the accounting literature. Among these are: proprietary theory, entity theory, fund theory,[10] social institution theory,

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[9] Ibid., p. 40.

[10] William J. Vatter, The Fund Theory of Accounting and Its Implications for Financial Reports (The University of Chicago Press, 1947).

commander theory,[11] and economic theories of the firm. The proprietary and entity theories are the most commonly discussed theories, with the others being treated as refinements, modifications or attempts at reconciliation of those two theories.

The purpose of this section is to determine whether the selection of a particular "theory" enhances or negates the previously discussed basic concepts of accounting and whether such selection has any bearing on the treatment of convertible securities. If so, which theory is most representative of current practice? There is no need, within the scope of this study, to draw a conclusion concerning which theory is best, or ought to be the theory of accounting. In addition, only the two main theories, the proprietary theory and the entity theory, will be discussed, which should serve adequately for the present purpose.

According to the proprietary theory the firm is owned by some specified person or group. The ownership interest may be represented by a sole proprietor, a partnership, or by a number of stockholders. In any event the assets of the firm belong to these people and any liabilities of the firm are their liabilities. Revenues received by the firm immediately increase the owner's net interest in the firm, which is the total assets minus the total liabilities. Likewise all expenses incurred by the firm immediately decrease their net

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[11] Louis Goldberg, An Inquiry into the Nature of Accounting (American Accounting Association, 1965).

interest in the firm. This is the same thing as saying that profits become the property of the owners, and not the firm, at the time they are earned.

To the owners, according to Lorig, "The business is merely a segregated portion of their financial interests, accounted for separately because it is convenient or necessary for various reasons to do so."[12] This viewpoint combined with the immediate effect of profit on their net interest means, to those who adhere to the proprietary theory, that "The proprietors are the center of interest at all times, and their viewpoints are the ones reflected in the accounting records."[13]

The preceeding comments reflect a generally accepted summary of the proprietary theory. However, there is widespread difference of opinion concerning the composition of the proprietorship group. For example, Husband takes a narrow view and asserts that "The preferred stockholders occupy a 'hybrid' position, a resultant of the cross breeding of bonds and common stock. On the theory that the common stockholders occupy the entrepreneurship position in the corporation, preferred stock, like bonds, represents hiring of capital services. Consistent therewith, preferred stock dividends are best treated as cost."[14] Staubus has also advocated the narrow

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[12] A. N. Lorig, "Some Basic Concepts of Accounting and Their Implications," The Accounting Review (July 1964), pp. 564-565.

[13] Reginald S. Gynther, "Accounting Concepts and Behavioral Hypotheses," The Accounting Review (April 1967), pp. 275.

[14] G. R. Husband, "The Entity Concept in Accounting," The Accounting Review (October 1954), p. 561.

version in his "residual equity" concept. He would exclude the preferred stockholders, unless the stock was participating preferred, from the ownership group. He points out that "One way of emphasizing the residual equity is to convert the primary expression of the accounting equation, assets equal equities, to the form: <u>assets minus specific equities (liabilities, including preferred stock) equal the residual equity</u>."[15]

The other extreme view is that all long-term investors, whether bondholders, preferred stockholders or common stockholders, are part of the proprietorship group. For example, Chow believes that "a concept of proprietor broadly defined as the totality of private interests or the long-term investors as a class would be more logical and workable from the standpoint of theory and practice."[16]

The more common viewpoint is probably the one which compromises the two extremes. That is, the proprietors of a business are the preferred and common stockholders, even though it is recognized that the preferred stockholders usually have no voice in the management of the business. Nevertheless according to Lorig, "In practice, the financial return to them [the preferred stockholders] is always considered a distribution and is chargeable only to net profits, current or accumulated, and payable only when declared in the form

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[15]G. J. Staubus, "The Residual Equity Point of View in Accounting," <u>The Accounting Review</u> (January 1959), p. 13.

[16]Y. C. Chow, "The Doctrine of Proprietorship," <u>The Accounting Review</u> (April 1942), p. 162.

of a dividend. Both classes of stockholders, therefore, are distinctly different from the creditor group, and this distinction is basic in the proprietary concept."[17]

Since the proprietary theory asserts that profits become the property of the owners at the time they are earned, whether they are distributed or not, it appears that Lorig is contradicting that theory when he emphasizes dividend declarations as a determinant of financial return. It should be noted, however, that Lorig's statement reflects a traditional accounting viewpoint concerning the distinction between stockholders and creditors.

While not necessarily the first to do so, the entity theory was described and put forth as a more appropriate theory of accounting by Paton in 1922. In the preface he briefly summarized the proprietary theory and recognized that such a theory might be adequate for a sole proprietorship or a simple partnership. However, he felt that "as an explanation of the accounting system of the corporation, the present dominant form of business organization, such an arrangement of accounting principles is seriously defective."[18]

In order to overcome this serious defect his book was characterized as an attempt:

> . . . to present a restatement of the theory of accounting consistent with the conditions and needs

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[17] Lorig, op. cit., p. 565.

[18] William A. Paton, Accounting Theory (Reprint ed., Chicago: Accounting Studies Press, Ltd., 1962), p. iii.

> of the business enterprise *par excellence*, the large corporation, as well as applicable to the simpler, more primitive forms of organization . . . the view that the balance sheet is composed of *three* distinct categories, *assets*, *liabilities*, and *proprietorship*, and that the first two of these classes are of importance primarily in that their difference discloses the last, is abandoned, and the theory of the accounting system is presented in terms of the *two* fundamental dimensions, *properties* and *equities*.[19]

Therefore, the entity theory, like the proprietary theory, is a point of view toward the firm and the people concerned with its operation. Those who hold the entity viewpoint place the firm, and not the owners, at the center of interest. The essence of the theory is that stockholders as well as creditors are outside the firm. The firm exists as a separate and distinct entity apart from those who contributed the capital of the firm.

The assets and liabilities belong to the entity and not the owners. As revenue is received it becomes the property of the entity. Likewise, expenses incurred are obligations of the entity. Any net profits are the property of the entity and accrue to the stockholders only when a dividend is declared. The undistributed profits, if any, still belong to the entity "and this is not affected by the inclusion of undistributed profits in the stockholders' section of the printed balance sheet. The entity concept person sees this as mere conforming to conventional and regulatory reporting procedures."[20]

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[19] *Ibid.*, pp. iii-iv.

[20] Gynther, *op. cit.*, p. 276.

In the accounting literature frequent reference is made to the need for separate accounting of the activities of the firm and of the owners. This proposition is treated as a basic postulate, concept or assumption of accounting. For example, in his list of basic postulates Moonitz asserts that "Economic activity is carried on through specific units or entities. This proposition refers to the basic unit of economic organization and points the way for a similar orientation of accounting data."[21]

In his list of basic assumptions Mattessich states that "An entity is a social institution which may own and owe economic objects and which can (but need not) be owned by one or more agents or other entities."[22] This appears to be a restatement of the legal definition of a corporation and further indicates that an entity is not necessarily owned by anyone.

Grady took a similar approach in describing the basic concepts of accounting. He explained it this way:

> A business entity consists of an organization of persons and properties which have been brought together for certain economic objectives. . . . The business corporation created under incorporation statutes is recognized as an entity in its own right, separate and distinct from its stockholders. . . . The separation of ownership from management of the business entity is a primary factor in imposing

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[21]Maurice Moonitz, The Basic Postulates of Accounting. Accounting Research Study No. 1 (New York: American Institute of Certified Public Accountants, 1961), p. 22.

[22]Richard Mattessich, Accounting and Analytical Methods (Homewood: Richard D. Irwin, Inc., 1964), p. 38.

> on the entity the fiducuary accountabilities to its stockholders. The summary of generally accepted priciples later set forth is classified in relation to these fiducuary accountabilities.[23]

The purpose of the above comments was to illustrate and emphasize that in many contexts the entity concepts relate to the separation of the accounting records of the firm and the owners. In that case the term "entity concept" may not reflect the perception of the firm held by those who ascribe to the "pure" entity viewpoint.[24] The confusion would be reduced if writers adhered to Gynther's explanation. He indicated that "The 'independence' or 'separateness' of the entity's accounting records is commonly referred to as the 'entity convention' and not the 'entity concept.' If the hot dog vendor maintains separate accounting records for his business as he should (the entity convention), it does not follow that he has an entity viewpoint regarding the business--although this is possible."[25]

Does the choice of a particular accounting theory have any pertinence to a study concerned with the accounting treatment of convertible securities? As previously discussed, those who hold the proprietary viewpoint place the owners at the center of interest and expect the accounting reports to reflect that interest. On the other hand, Lorig summarized the common views of the entity theorists and in addition to the attitude toward the ownership of properties and profit

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[23]Grady, op. cit., p. 26.

[24]Gynther, op. cit., p. 276.

[25]Ibid., p. 276.

previously mentioned he asserted that "The accounting and financial reporting are for all interested parties, including the entity's administration. They are not intended specifically for the stockholders."[26] He believes that the views of the entity theorists regarding an incorporated business indicate that "the stockholders are closer to a creditor status than the creditors are to an owner status. And since under the entity concept the stockholders and long-term creditors are to be treated similarly, it is logical that both classes should be regarded as creditors."[27]

Therefore the answer to the above question is a definite yes. Since the proprietary theory places ownership at the center of interest for accounting purposes it is essential to determine whether convertible securities represent a part of the ownership if that theory is adopted. On the other hand, since the entity theory suggests similar treatment for stockholders and long-term creditors there would be no point discussing the debt or equity nature of convertible securities if that theory were adopted.

The fact that it does make a difference which theory is followed indicates that some consideration should be given to which of the two theories is most common in current practice. This is a problem for substantial empirical research which is beyond the scope of this study. However, several writers have addressed themselves to the problem. For

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[26] Lorig, op. cit., p. 567.

[27] Ibid., p. 567.

example, Lorig lists nineteen differences in accounting and financial reporting which have been influenced by the two concepts. He concludes that in sixteen out of nineteen "the proprietary viewpoint seems to be the one generally held."[28] He stated the conflicts in the form of questions which he answered yes or no (using P.C. for proprietary concept and E.C for entity concept). In addition he elaborated the yes or no with some brief comments. The questions pertained to such things as ownership of profits, properties, and undistributed earnings, the treatment of taxes, the book value of stock, etc. Several of the questions and comments will be repeated here in order to illustrate his reasoning:

1. Are the net earnings of a business to be considered income of the stockholders (or other owners)?
   P.C. Yes E C. No

   Under the entity concept, the income is that of the business enterprise itself until dividends are declared or distribution otherwise made.

2. Should earnings per share be reported?
   P.C. Yes E.C. No

   The earnings per share has real significance to the stockholders under the proprietary theory. Under the entity concept the earnings do not belong to the stockholders and the amount per share would carry misleading inferences.

3. Are corporate retained earnings, or earned surplus, part of the stockholders' equity?
   P.C. Yes E.C. No

   According to the entity theory, the retained earnings must be regarded as belonging to the entity itself.

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[28] *Ibid.*, p. 572.

17. Should the calculated book value per share of common stock include a proportionate part of retained earnings?

P.C. Yes E.C No

The retained earnings do not belong to the stockholders under the entity concept. Hence the book value cannot properly include any part of those earnings.

18. Is the common account form of balance sheet (debits on one side, credits on the other) the clearest form for presenting the financial position?

P.C Yes E.C. No

The equation for the entity concepts is "Assets = Equities (or Liabilities)" and this corresponds to the account form. The equation for the proprietary concept is "Assets - Liabilities = Proprietorship" and the report form of financial position expresses that relationship most clearly.[29]

Gynther is not willing to accept the approach used by Lorig because he thinks that the wide variety of viewpoints within the two main concepts makes it difficult to prepare one comprehensive listing of differences, but he also comes to the conclusion that the proprietary theory is most commonly followed by accountants. He states his views in the form of hypotheses. For example he says "It is hypothesized that most stockholders with substantial holdings of shares in corporations have the proprietary outlooks. . . . Further it is claimed here that most accountants in public practice have a proprietary outlook. . . . To most accountants the prime function of the accounting system is to reflect the interests of the shareholders."[30]

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[29] _Ibid_., pp. 570-572.

[30] Gynther, _op_. _cit_., pp. 282-283.

The opposite view is taken by Goldberg. He indicates that "The theory which is probably most widely adopted nowadays by accounting writers and teachers . . . is the entity theory, and it is the one which is most generally accepted by the present generation of practicing accountants. . . ."[31] It should be noted, however, that Goldberg equates the entity concept with the entity convention which may account for his statement.[32]

Since it is not practical to prove, empirically, the prominence of one or the other of the two theories this study will proceed on the assumption that, while the entity convention may be popular, the proprietary theory is most commonly followed by accountants.

Convertible Securities from the Accounting Viewpoint

One conclusion which may be drawn from a survey of the accounting literature is that many accounting writers do not give any specific attention to convertible securities. At best, such securities receive only brief mention and even then there is no analyses of the characteristics of these securities. The report from a committee of the American Accounting Association will serve as one example of this tendency. The report first noted that the term "entities" covered both creditor and stockholder interest. It was then pointed out that "a particular corporate security may combine some of the characteristics

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[31] Goldberg, op. cit., p. 109.

[32] Ibid., pp. 109-110.

of both creditor and stockholder interests. Equities should be reported in financial statements in a manner which emphasizes their dominant characteristic."[33] If the report had stopped there it would be appropriate to assume that the committee would include convertible securities in the group of hybrid securities which should be analyzed for the purpose of determining the dominant characteristics. However, the report appears to have precluded that assumption by the comment, two paragraphs later, that "When a liability is discharged by conversion to a stock equity, the market value of the liability is ideally the measure of the new equity created."[34]

Thus the only specific reference to convertibles is in the context of a liability being converted into a stock equity. There is no suggestion whatever that perhaps, on the basis of dominant characteristics, convertible bonds should have been reported as a part of the stockholders' interest and not as a liability prior to the conversion. The purpose here is not to assert that convertible bonds should be so classified but, rather, to point out that the committee, apparently, automatically considered such securities to be a part of the liabilities despite the fact that the hybrid nature of some securities was recognized.

Another study devoted only one short paragraph to convertible securities. The comments, while brief, were explicit about the nature

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[33]American Accounting Association, Accounting and Reporting Standards for Corporate Financial Statements, 1957 Revision.

[34]Ibid.

of convertible bonds. The entire paragraph was as follows:

> Liabilities sometimes exist in a form which may be converted into owner's equity at the option of the obligee. For example, bond indentures may provide that under certain prescribed conditions bonds can be exchanged for shares of stock at the option of the bondholders. Until conversion occurs, these bonds are liabilities. Upon conversion there is an increase in stockholders' equity and a reduction of liabilities. Until actual exchange, the bonds have a known maturity date and maturity value.[35]

These comments reflect the traditional viewpoint of accountants regarding convertible securities. Convertible bonds are liabilities and convertible stocks are owners' equity. There is no concern about dominant characteristics. Apparently any conflict in the minds of the writers has been resolved in favor of tradition with the key factors being a known maturity date and maturity value.

On the basis of the evidence presented in the previous chapter concerning the relative importance of convertible securities in corporate financing, the choice of words in the above statement seems to be misleading. More appropriate wording might be as follows: "Liabilities <u>often</u> exist in a form which may be converted. . . . For example, bond indentures <u>frequently</u>. . . ." The change in terms would not necessarily have altered the conclusion of Sprouse and Moonitz, but may have resulted in a more comprehensive discussion.

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[35] Robert T. Sprouse and Maurice Moonitz, <u>A Tentative Set of Broad Accounting Principles for Business Enterprise</u>. Accounting Research Study No. 3 (New York: American Institute of Certified Public Accountants, 1962), p. 38.

In the Grady study, previously mentioned, there are several references to convertible securities. Most of these are repetitions of earlier Accounting Research Bulletins and pertain to the value to be placed on the common stock issued through a conversion process and to the computation of earnings per share when conversion has taken place. The comments reflect a concern for the effect of conversion on current year earnings per share and comparative statistics for a period of years.[36] There was no reference to the nature of convertible securities.

In a different context, Grady made a statement which appears to be especially pertinent to the present study. In his discussion of invested capital which is attributable to stock outstanding he said "Stock outstanding may consist of preference and common stocks. Debentures subordinate to the claims of creditors are also sometimes classified as invested capital. The accountant should not ordinarily object to this, if full disclosure is made."[37] The pertinence of this statement is based upon the evidence presented in the previous chapter which indicated that convertible bonds are frequently subordinated debentures.

Therefore, if there is no objection to classifying ordinary subordinated debentures as invested capital there should be even less

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[36] Grady, op. cit., pp. 196, 308, 309.

[37] Ibid., p. 198.

objection to such classification when the conversion feature is added. Yet, there was no mention whatever of such a possibility.

In order to gain some insight into the rationale for the above statement and to get his thinking on the present study the present writer addressed some questions to Mr. Grady. His reply, with the exception of the last paragraph, which pertained to permission to quote, was as follows:

> Where so-called Debentures are subordinate to creditors, it is obvious that they become a special form of equity. As such, a full explanation of their terms is required for the information of creditors, whose claims are senior to them, and for preference and common stockholders whose position is junior to that of the debentures. The disclosure should fairly present the principal terms of the Indenture agreement, including the terms of conversion into stock, if they are convertible, and the contingencies, if any, whereby they might become liabilities of the corporation.
>
> I trust your study will include a review and analysis of several specific indentures and perhaps some history of the eventual conversion or liquidation. This should place you in a better position to judge whether the probabilities inherent in this special form of invested capital, justifies the treatment described in ARS No. 7.[38]

The above letter contains an interesting paradox. On the one hand there is the observation that subordinated debentures are obviously a special form of equity. Furthermore, such securities may become liabilities of the corporation only through the existence of some possible contingencies, which are not stated. Thus, there is a strong implication that not only should the accountant not

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[38]Paul Grady, Personal correspondence, July 5, 1968.

object to reporting these securities as a part of equity, but that such treatment is the most appropriate.

On the other hand, when the subordinated debentures are convertible, Grady suggests that reporting them as equity requires justification based upon some inherent probabilities. Again he does not specify what the probabilities are that would justify such treatment. It appears that he is referring to a historical study of the eventual conversion or liquidation of convertible issues, and the question of what probability of conversion justifies treating these securities as equity remains unanswered. In addition, there is no attempt to explain why the attachment of the conversion feature to a subordinated debenture makes the accounting treatment uncertain when the treatment of non-convertible subordinated debentures is "obvious."

Opinions of the Accounting Principles Board

This section will be devoted to a rather extensive coverage of those opinions issued by the Accounting Principles Board of the American Institute of Certified Public Accountants which contain specific reference to convertible securities. Therefore, it seems appropriate to briefly consider the responsibility and authority of that Board. The Board was charted by the Council of the Institute and the Charter contains, among others, the following provisions:

1. Authority for Issuance
   The Board shall have the authority and the duty to issue, in its own name, pronouncements on accounting principles.

> 2. Nature
> Such pronouncements are expected to comprehend basic postulates, broad principles, and rules or other guides for the application of accounting principles in specific situations. . . . They are to be based on what the Board determines to be adequate research and are expected to be regarded as authoritative written expressions of generally accepted accounting principles.[39]

Each opinion issued by the Board carries a notation stating that the authority of the opinion rests upon general acceptance, but that departures from the opinion must be justified by those who adopt other practices. In addition, the notation sets forth the position of the Council of the Institute that:

> a. "Generally accepted accounting principles" are those principles which have substantial authoritative support.
>
> b. Opinions of the Accounting Principles Board constitute "substantial authoritative support."[40]

Furthermore, the Council, while recognizing that there may exist "substantial authoritative support" for accounting principles which differ from the Board opinions, has asserted that whenever the accountant prepares financial statements which contain departures from the opinion such departures must be disclosed in footnotes to the financial statements. The influence which the Board has upon accounting principles should be rather obvious.

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[39] American Institute of Certified Public Accountants, Charter of the Accounting Principles Board.

[40] American Institute of Certified Public Accountants, Council of the Institute. "Disclosure of Departures from Opinions of Accounting Principles Board" (October 1964).

Since December 1966, the Accounting Principles Board has issued four opinions in which specific attention was given to convertible securities.[41] The third opinion suspended the second, and the fourth revoked the second; however, the rationale of each is of importance to this study and will be discussed.

Opinion No. 9 is concerned with two major aspects of reporting the results of operations for a firm. The first aspect is the determination of net income and the treatment of extraordinary items and prior period adjustments. The second aspect, and the one which involves convertible securities, is the computation and reporting of earnings per share.

The Board began its discussion of earnings per share by stressing the importance of such a statement when used in conjunction with other financial statements. The Board then said that the term "earnings per share," unless qualified, "refers to the amount of earnings applicable to each share of common stock or other residual security outstanding."[42] Again the problem arises concerning the composition of the proprietorship or residual equity group. Obviously, the Board does not accept the previously discussed "narrow view" which holds that only the common stockholders should be included. The

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[41]American Institute of Certified Public Accountants, Accounting Principles Board, "Opinion No. 9: Reporting the Results of Operations" (December 1966); "Opinion No. 10: Omnibus Opinion--1966" (December 1966); "Opinion No. 12: Omnibus Opinion--1967" (December 1967).

[42]"Opinion No. 9," op. cit., par. 33.

Board continued the above statement by saying that "When more than one class of common stock is outstanding, or when an outstanding security has participating dividend rights with the common stock, or when an outstanding security clearly derives a major portion of its value from its conversion rights or its common stock characteristics, such securities should be considered 'residual securities' and not 'senior securities' for purposes of computing earnings per share."[43]

Only the last of the three situations described above may be considered as a significant addition to "residual securities" as traditionally defined. There is little purpose in treating different classes of common stock as a special situation. All common stockholders, regardless of class, have been generally accepted as part of the proprietorship or residual equity group. And even the narrow "residual equity" view held by Staubus included participating preferred stock in the ownership group. On the other hand, by asserting that under certain circumstances convertible securities should be regarded as residual securities, the Board has indirectly questioned the treatment of such securities on the statement of financial position.

The Board did not suggest how the accountant might determine whether the major portion of the value of an outstanding security was "clearly derived" from its conversion rights or its common stock characteristics. In fact, throughout the remainder of the opinion

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[43] _Ibid._, par. 33.

all references to convertible securities applied only to those convertible issues which do not qualify as residual.

The purpose of this study would have been better served if the Board had elaborated its brief treatment of convertibles as residual securities. Unfortunately that was not the case but, in dealing with the other convertible securities, the Board expressed some views which should be considered.

The Board approved the traditional procedure relating to convertible securities when computing earnings per share. According to the Board, "When senior stock or debt is converted into common stock during a period, earnings per share should be based on a weighted average of the number of shares outstanding."[44] This is simply a more positive statement of the position outlined in an earlier Accounting Research Bulletin which indicated that "earnings per share should ordinarily be based on weighted average. . . ."[45] However, the Board also added the comment that if the effect of conversion would be material it would be appropriate to prepare "pro forma computations of earnings per share, showing what the earnings would have been if the conversion had taken place at the beginning of the period. . . ."[46] Similar pro forma computations are also to be made when conversion takes place after the close of the period prior to the completion and issuance of the financial statements.

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[44] Ibid., par 38.

[45] Grady, op. cit., p. 308.

[46] "Opinion No. 9," op. cit., par. 38.

The Board expressed particular concern for adequate disclosure in those situations where earnings per share may be subject to dilution in the future because of existing contingencies which would permit the issuance of additional shares of common stock. Foremost among these contingencies are outstanding convertible preferred stock or convertible bonds and outstanding stock options. In those cases where the potential dilution is material, the Board again suggested pro forma computations of earnings per share "showing what the earnings would be if the conversion or contingent issuances took place. The Board strongly recommends that such per share data be disclosed in the statement of income."[47]

The Board further reflected its concern in the next paragraph by observing that "The fact that the relationship between current market and conversion prices makes conversion or other contingent issuance unlikely in the foreseeable future is not sufficient basis for omission of the disclosure of the pro forma earnings per share data. . . ."[48] The position of the Board seems to be clear: Whenever the potential dilution is material there must be a pro forma computation of earnings per share showing what the earnings would be if the contingency eventuates.

In summary, it can be said that the Board, in rendering its opinion on earnings per share, paid particular attention to the potential

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[47] Ibid., par. 43.

[48] Ibid., par. 44.

effect of convertible securities upon the computed earnings. First, by requiring that under certain conditions such securities should be treated as residual securities and secondly, by insisting upon pro forma computations under various other circumstances, the Board alerted the profession to the need for special treatment of convertible issues.

Since the Opinion just discussed was limited to reporting the results of operations, and especially the computation of earnings per share, the Board did not consider the statement of financial position treatment of convertible securities. This was one of the topics covered briefly in another Opinion issued at the same time. The Board expressed the following attitude:

> A portion of the proceeds received for bonds or other debt obligations which are convertible into stock, or which are issued with warrants to purchase stock, is ordinarily attributed to the conversion privilege or to the warrants, a factor that is usually reflected in the stated interest rate. In substance, the acquirer of the debt obligation receives a "call" on the stock. Accordingly, the portion of the proceeds attributable to the conversion feature or the warrants should be accounted for as paid-in capital. . . .[49]

Thus, in this latter Opinion the Board took the position that under certain circumstances a portion of the proceeds from the sale of convertible bonds should be treated as paid-in capital while in the previous Opinion, under certain circumstances, the entire convertible issue should be treated as residual. Of course, in Opinion No. 9

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[49]"Opinion No. 10," _op. cit._, par. 8.

the Board was dealing with the computation of earnings per share while in Opinion No. 10 the statement of financial position classification of convertible issues was the topic.

Perhaps there is no conflict between the two opinions, but they do give rise to certain speculations. In Opinion No. 10 the Board said that the amount to be recorded as paid-in capital "may ordinarily be measured as the difference between the price at which the debt was issued and the estimated price for which it would have been issued in the absence of the conversion feature."[50] It may be recalled that in Opinion No. 9 it was stated that the convertible security should be treated as a residual security if it derived a major portion of its value from the conversion feature. Therefore securities which are treated totally as residual in income statement computations will only be partially, if at all, recorded as paid capital in the statement of financial position.

A survey of various accounting journals for several months following the issuance of the two previously discussed opinions indicates that the sections pertaining to convertible securities were quietly accepted by the profession. There were no articles or letters to the editors criticizing the actions of the Accounting Principles Board. However, after one year the Board chose to suspend that section of Opinion No. 10 pertaining to convertible securities.

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[50] Ibid., par. 9.

In announcing the temporary suspension the Board explained that since the issuance of the Opinion setting forth the accounting treatment for the proceeds of convertible bonds or warrants the following developments had occurred

> . . . the Board has observed developments in the use of securities of this character and experiences in the application of those paragraphs of the Opinion. In addition, the Board has received views of interested parties relative to the nature of these securities and the problems in implementing the paragraphs. These observations and views have suggested that because certain aspects of these instruments, particularly in the case of convertible debentures, raise difficult estimation and other problems, further study is needed in this area. Also, because of the actual or potential equity nature of these instruments, the relationship between the accounting for the proceeds and the treatment of "residual securities"in the determination of earnings per share has created problems which need to be studied further.[51]

Since the "views of interested parties" were not presented in the accounting journals it is not possible to evaluate those views. However, a rather brief indication of the views and their source was revealed by Savoie. According to him each Board member received a telegram, which "was signed by 12 of the country's largest investment banking firms and 5 of the largest law firms,"[52] requesting a discussion and restudy of Paragraphs 8 and 9 of Opinion No. 10. The Investment Bankers Association had received the exposure draft of the Opinion but did not respond at that time. Now certain new information

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[51]"Opinion No. 12," _op_. _cit_., par. 11.

[52]Leonard M. Savoie, "Controversy Over Accounting Principles Board Opinions," _The Journal of Accountancy_ (January 1968), p. 40.

was made available to the Board and it agreed to a meeting. Savoie says that "The questions raised relate mainly to practical difficulties in arriving at a value to place on the conversion feature of convertible debentures through the process of relating the convertible debenture price to the price of a straight debt security without the conversion feature."[53]

Savoie seems to minimize another aspect of the investment banker's concern and yet his mention of it gives rise to the prospect that it may have been a significant factor. He says that "This issue, too, has overtones of earnings per share. Allocation of a portion of proceeds of a convertible debt issue to the conversion feature results in debt discount which must be amortized against future earnings. Thus, convertible debt is less appealing than it would be without this requirement."[54]

The impression is thus created that reaction to Opinion No. 10 came only from the direction of investment bankers and not from accountants or management. Furthermore, the expressed criticism concerned technical procedures for implementing the Opinion and not the theoretical bases of the Opinion.

In addition to the temporary suspension of Paragraphs 9 and 10 of Opinion No. 10 the Board ruled that until its new Opinion pertaining to convertible securities is issued, and which may be retroactive,

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[53]Ibid., p. 40.

[54]Ibid.

"a dual presentation of earnings per share of common stock should be furnished on the face of the statement of income"[55] by those firms which would have been subject to the Opinion. The presentation should show earnings per share (1) based upon the average number of shares outstanding and (2) assuming complete conversion of all outstanding convertible securities. The Board says that "The purpose of the dual presentation is to recognize and emphasize the complex nature of these securities, including the existence of equity characteristics, and the possibility that conversion of the security or exercise of options or warrants may affect earnings per share of common stock."[56]

The most recent activity of the Board, relative to convertible securities, was the release of an exposure draft of a new opinion and a new opinion. The exposure draft is intended to be an expansion and clarification of the previous Opinion dealing with earnings per share and the new opinion pertains to accounting for convertible debt and debt issued with stock purchase warrants. The Board included a summary of the significant points and parts of the summary of the earnings per share Opinion are repeated here:

> 1. A dual presentation of earnings per share figures will be required on the face of the income statement for (a) primary earnings per share--earnings attributable to each share of common stock and equivalent share

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[55]"Opinion No. 12," op. cit., par. 15.

[56]Ibid., par. 15.

of common stock attributable to residual securities and (b) fully diluted earnings per share--earnings attributable to each share of common stock assuming all conversions, exercises and contingent issuances had taken place.

2. Residual securities are defined as those which (including options and warrants) clearly derive a substantial portion of their value from their conversion rights or other common stock characteristics.

3. The test for determining residuality of a security at and subsequent to issuance is based on the relationship between investment value and the market price of the convertible security. . . .

4. The exposure draft takes the position that the residual security concept should be applied only in the computation of earnings per share; no changes should be made in the basic accounting and financial presentation for residual securities. . . .[57]

In Opinion No. 14, the new opinion, the Board discussed the arguments on both sides for treating a portion of the proceeds of a convertible bond as paid-in capital and concluded that ". . . no portion of the proceeds from the issuance of the types of convertible debt securities . . . should be accounted for as attributable to the conversion feature. In reaching this conclusion, the Board places greater weight on the inseparability of the debt and the conversion option . . . and less weight on practical difficulties."[58]

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[57]American Institute of Certified Public Accountants, Accounting Principles Board,"Exposure Draft, Proposed APB Opinion: Earnings Per Share"(November 6, 1968).

[58]American Institute of Certified Public Accountants, Accounting Principles Board, "Opinion No. 14: Accounting for Convertible Debt and Debt Issued with Stock Purchase Warrants" (March 1969).

The Board has thus come full cycle in its attitude. First it required that a portion of convertible bond proceeds be treated as equity, it then suspended that requirement, and now forbids such treatment. It is interesting to note, however, that the Board still says that such securities have debt and equity characteristics.

The remainder of this study will be concerned with more clearly developing those characteristics and evaluating the debt and equity nature of convertible securities.

CHAPTER 4

DEBT VERSUS EQUITY

The traditional statement of financial position requires the classification of items reported on the right-hand side of the statement into two major categories: liabilities and ownership. This presupposes that all financial interest in the enterprise is either a creditor interest or ownership interest. It is further assumed that the person preparing the statement has the capacity to recognize which category is appropriate for a particular interest.

There are at least two disturbing fallacies reflected in the above assumptions. The first is simply the fact that as business enterprises, and particularly corporation, have become more complex, so have the types of financial interests. Some interests, such as those of trade creditors, do not present any particular problem. The difficulty stems, to a great extent, from the wide variety of securities which are issued. As early as 1922, Paton was expounding on the "almost indefinite variety of preferred stocks"[1] and the "great variety of bond issues."[2]

There are preferred issues which are "callable" or "redeemable" at the option of the corporation on the basis of certain agreed upon

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[1]William A. Paton, Accounting Theory (Reprint ed., Chicago: Accounting Studies Press, Ltd., 1962), p. 70.

[2]Ibid., p. 71.

conditions. The preferred stockholders may "participate" with common stockholders in any distribution of earnings above a certain amount and dividends are frequently "cumulative." The preferred shares may also be "convertible" into other securities, particularly into common stock. A specific preferred stock issue may contain any combination of these features.

Among the many bond issues are "income" bonds, "mortgage" bonds, "collateral trust" bonds, "debenture" bonds and "convertible" bonds. In addition there are numerous different features incorporated into these major types of bond issues. In fact, Paton claimed that "virtually every specific issue has its peculiar features in regard to income, safety of principal, and control of operation."[3] In support of the entity theory of accounting he asserted that "if all corporate stocks and bonds were to be arranged in a series according to degree of risk attaching to each, beginning with the most speculative types of common stock at one extreme, followed by the better grade common issues, the less conservative preferred stocks, the highly safeguarded preferred issues, and all the various grades of bonds grouped according to security, it would be impossible to draw any hard and fast line of division which followed security types and corresponded to the proprietor, creditor grouping of the sole-proprietorship or the entrepreneur-capitalist classification."[4]

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[3] Ibid.

[4] Ibid., pp. 72-73.

The second major fallacy in the traditional assumptions about balance sheet classification is that despite the wide variety of securities the person preparing the statement can be expected to "properly" classify the particular interest as creditor or ownership. Unfortunately, there does not appear to be a definitive statement of the distinction between a creditor interest and an ownership interest which the person preparing the statement of financial position can use as a guide-to-action in carrying out his responsibility for classification. Various writers have set forth what they believe to be the appropriate distinction, while others, like Paton in the statement above, simply say that it is impossible to develop such a definitive statement. This is clearly the easiest way out of the dilemma and perhaps the only way out.

This would require that accountants adopt the entity theory and discontinue the proprietary theory, which would entail a major re-examination of accounting thought. The purpose of this study is not to attempt that re-examination, rather it is to take the present classification system as given and through empirical data provide some assistance in the classification of one of the numerous securities: the "convertible," both bond and preferred stock.

Before undertaking the empirical investigation it seems altogether appropriate and necessary to establish a framework for the research. Consequently at this point an effort will be made to summarize the various views of what constitutes the distinction between

debt and equity. In the next chapter the empirical data will be related to the characterizing features of debt and equity thus established.

Criteria for Classification as Debt or Equity

In the discussion which follows, certain of the criteria will be attributed to a particular writer even though the view may not be unique to that individual, but in some cases this may be the situation. Some of the criteria are based upon widespread opinion while others reflect the present writer's interpretation.

Bargaining

According to Johnson[5] the key factor in determining whether a particular security represents a creditor interest or ownership interest is bargaining. This view was discussed previously in connection with evaluation of similarities and dissimilarities of bonds and preferred stocks. Therefore, only a brief review will be given at this point. He believes that it is impossible for there to be any bargaining between the owners and the company. The interest of the owners is the same as the interest of the company and vice versa.

On the other hand, there is commonly bargaining between the company and creditors, especially long-term creditors. The bargaining relates to four factors which are the distinguishing features of debt

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[5]Robert W. Johnson, Financial Management (2nd ed., Boston: Allyn and Bacon, Inc., 1962), pp. 135-138.

and equity: "maturity, claim on income, claim on assets, and right to voice in management."[6]

These four features establish a set of opposites. If the security is a debt there is a due date which means that repayment will be required at a specified time. If the security reflects ownership there is no due date because there is no commitment on the part of the company to return the original investment. Only by selling his shares or liquidating the company can the owner recover his investment.

The creditors' claim on income is prior to the owners'. They also have a certainty of that claim because interest on debt is considered a legal obligation, whereas the owners have no legal recourse if dividends are not paid, except in rare cases. A third factor which pertains to the claim on income is the amount of the claim. Creditors have an agreed upon rate of interest which they can expect to receive. They receive no more or no less, while the owners have a claim on what is available after other outlays. Thus what the owners receive, if anything, fluctuates from year to year.

The claim on assets feature of the bargain is meaningful only in the event of liquidation, and neither creditors nor owners would make their initial commitments on the basis of expected liquidation. In the event that the unexpected does occur the creditors have a claim prior to the owners.

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[6] Ibid., p. 135.

The agreement between the company and creditors does not usually allow the creditors any direct voice in the management of the company. There are frequently agreements which provide that upon the occurence of specified contingencies the creditors obtain certain management rights.

Legal Status and Investment Character[7]

The traditional textbook basis for the classification of securities, according to Graham, Dodd and Cottle, is the legal distinction between the position of creditors and owners and the safety of bonds versus the opportunity for speculative gain of stocks. They object to the present classification for a number of reasons, the first being that preferred stocks are placed with common stocks when, "so far as investment practice is concerned, the former undoubtedly belong with bonds."[8] They express the view that preferred stockholders consider themselves not as partners in the business but as senior security holders, and they are "owners of the business only in a technical, legalistic sense; but they resemble bondholders in the purpose and expected results of their investment."[9]

They see bonds being equated with safety, but this may be misleading because safety does not necessarily follow from an obligation

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[7]Benjamin Graham, David L. Dodd and Sidney Cottle, Security Analysis (4th ed., New York: McGraw-Hill Book Company, Inc., 1962), p. 98.

[8]Ibid., p. 98.

[9]Ibid.

to pay interest and to redeem the bond at maturity. The legal recourse also fails to provide safety because "Safety depends upon and is measured entirely by the ability of the debtor corporation to meet its obligations."[10]

These writers offer an alternative plan for classification which eliminates the strict creditor-owner division. This plan will not be considered at this point because the concern here is with how to make the distinction, rather than its elimination.

Dilution of Earnings Per Share

The Accounting Principles Board has been devoting considerable attention to the problem of the appropriate computation of earnings per share. The various opinions of the Board concerning this matter were reviewed in the previous chapter and will not be repeated here except to note that a major point was what constituted a residual security. It is clear that the Board treated securities other than common stock as residual. It also appears reasonable to conclude that if a security represents a residual interest it also represents an ownership interest rather than a creditor interest.

The conclusion of this writer is that the major test of the residual nature of a security, implied in the Board's opinion, is whether the security has the potential to dilute earnings per share, not necessarily at the time of issue but at some time in the future. If this potential exists the security is residual.

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[10] Ibid., p. 99.

Weston's Senior Versus Residual Classification[11]

In a recent article Weston reviewed the opinions of the Accounting Principles Board which pertained to earnings per share. He concluded that a determination of the relative values of the senior security characteristics and the residual security characteristics would involve many problems of interpretation and application. He offered the following factors as those which would normally be considered:

Senior security characteristics

Fixed dividend rate
Preference of such fixed dividend
    over other securities
Cumulative nature of fixed dividend
Liquidation preference
Redemption requirements

Residual security characteristics

Conversion features
Participating features, with common
    stock, in--
        dividends
        liquidation
Voting rights [12]

Weston qualified these factors by pointing out that liquidation or redemption play an insignificant part in the evaluation of a complex security unless redemption or liquidation are imminent. The conversion feature, on the other hand, is the residual security characteristic

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[11] Frank T. Weston, "Reporting Earnings Per Share," Financial Analysts Journal (Vol. 23, No. 4, July-August, 1967), p. 50.

[12] Ibid., p. 50.

which is most meaningful for value determination.[13]

Maturity Value and Maturity Date

In their discussion of the nature of liabilities and owners' equities, Sprouse and Moonitz explicitly set forth the criteria for distinguishing the interests of owners and creditors. According to them there are two grounds on which to make the distinction:

> First, the amount of the owners' equity is residual in nature while the maturity values of liabilities are independently determined. Whenever a change in assets is not exactly offset by a change in liabilities, or *vice versa*, the difference is automatically reflected in the owners' equity as the residual interest. Second, liabilities are in a continuous and irresistible process of maturing while the owners' equity matures only at the volition of the owners of the business enterprise or their representatives or upon ultimate liquidation. Thus, liabilities are obligations, the amounts and maturities of which are not solely within the control of the business enterprise.[14]

Legal Distinction

The legal view of creditors and owners revolves around the income tax and bankruptcy laws. It is well established that interest payments on debts are deductible by the corporation in determining its income tax liability while payments to owners in the form of dividends are not deductible. Likewise, the non-payment of interest or

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[13] *Ibid.*, p. 50.

[14] Robert T. Sprouse and Maurice Moonitz. *A Tentative Set of Broad Accounting Principles for Business Enterprise*. Accounting Research Study No. 3 (New York: American Institute of Certified Public Accountants, 1962), p. 38.

principal when due constitutes grounds for the creditors to initiate bankruptcy proceedings, while the owners have no such recourse if dividends are not paid.

Obviously the mere statement of the law does not solve the problems of what constitutes debt, and therefore interest payments and which individuals are entitled to institute bankruptcy. Especially in the area of taxation there have been a number of cases concerning the deduction of payments. Several of these cases were cited by Johnson in a 1955 article and he felt that one particular case[15] well summarized the combination of factors which distinguish debt securities from ownership securities. In that case the "securities were held to be evidence of indebtedness and the interest tax-deductible on the grounds that: (1) the securities were called 'debenture certificates' and the phraseology throughout was of a debt instrument; (2) a fixed amount was to be repaid at a definite maturity date; (3) a fixed amount of interest, not dependent upon earnings, was to be paid at definite dates; (4) the rights of the debenture holders were subordinate to all creditors but superior to stockholders; (5) the certificates carried no voting power; and (6) the taxpayer presented good business reasons for issuing the debentures."[16]

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[15] Clyde Bacon, Inc., v. Commissioner of Internal Revenue 4TC1107, Acq. (1945).

[16] Robert W. Johnson, "Subordinated Debentures: Debt that Serves as Equity," The Journal of Finance (Vol. X, March 1955), p. 14.

In a current issue of The Journal of Accountancy[17] a letter from the Internal Revenue Service concerning the issue of debt versus equity was quoted. Reference was made to a more recent case in which the factors normally considered are listed. In that case the court held that "There are at least eleven separate determining factors generally used by the courts in determining whether amounts advanced to a corporation constitute equity capital or indebtedness. They are (1) the names given to the certificates evidencing the indebtedness; (2) the presence or absence of a maturity date; (3) the source of the payments; (4) the right to enforce the payment of principal and interest; (5) participation in management; (6) a status equal to or inferior to that of regular corporate creditors; (7) the intent of the parties; (8) 'thin' or adequate capitalization; (9) identity of interest between creditor and stockholder; (10) payment of interest only out of 'dividend' money; and (11) the ability of the corporation to obtain loans from outside lending institutions."[18]

The above letter from the Internal Revenue Service specifically mentioned the widespread use of convertible bonds in corporate financing and concluded that:

> . . . subordination and convertibility are only two of many factors to be considered in determining whether a bond issue represents equity or indebtedness. The presence of both factors does not

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[17] Benjamin Grund, "Tax Clinic," The Journal of Accountancy (January 1969), p. 75.

[18] O. H. Kruse Grain & Milling v. Commissioner of Internal Revenue, 279 F. 2d 123.

> necessarily mean that a particular bond represents an equity interest. The ultimate answer would depend upon other factors involved. Since the interplay of the various factors turns upon the ingenuity of the person drafting the bond provisions, the Service has been unable to formulate a definite across-the-board position. Unfortunately, the Service like the accounting profession continues to struggle on a case basis in this much-contested area.[19]

Thus from the legal point of view there are a large number of factors to be considered in distinguishing between debt and equity. Unfortunately, it is not known just what weight each factor carries or what combination of factors are more necessary for debt or equity treatment. Therefore, it is impossible to know how near a particular security is to crossing over the borderline.

Value of Interest

A rather simple test of the debt or equity nature of a security, but one which appears inherent in the proprietary theory of accounting, is whether the value of the interest in the corporation is directly affected by earnings. The theory holds that earnings or losses accrue to the owners, whether distributed or not; therefore the value of their interest in the corporation will be increased or decreased. On the other hand, the value of the creditors' interest is relatively fixed; it will never increase and will only decrease if non-payment appears imminent.

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[19] Grund, *op. cit.*, p. 75.

Eventual Conversion or Liquidation

This particular factor for determining the proper classification of a security as debt or equity refers specifically to convertible securities. In addition it is derived from the writer's interpretation of certain comments contained in the letter from Grady which was quoted in the previous chapter. In reference to this study Grady stated that a review and analysis of the history of eventual conversion or liquidation of specific issues should place the writer in a better position to judge the proper classification of convertible securities.[20]

Some Other Factors

There are at least three other factors which should be mentioned and which may have been considered as sub-factors in some of the various sets of factors. The first is the pre-emptive right of common stockholders. The existence of this right (which is designed to protect the voting power, interest in assets, and share in earnings of the present owners) for new securities other than common stock may be an indication of the equity nature of the security.

The second factor is the existence or non-existence of a sinking fund for the security. The requirement of a sinking fund which begins immediately upon issuance is a rather common feature of debt instruments which have a definite maturity. The omission or postponement of such requirements should be considered in evaluating the debt or equity characteristics of a security.

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[20]Paul Grady, Personal correspondence, July 5, 1968.

The third factor relates to the attitude of investors concerning speculation. Traditionally investors who were primarily concerned with safety have invested in debt instruments. On the other hand, those who wanted to speculate on capital gain have to invest in common stocks. Therefore, if it is possible to determine the motives of those who invest in a particular security issue some insight into the appropriate classification may result.

Consolidated Set of Decision Factors

The following set of fourteen factors, along with several sub-factors, to be considered in determining the debt or equity classification of a particular security was developed from the various sets discussed above. The sequence in which the factors are presented is not intended to reflect any judgment about the relative importance of the factors.

1. Maturity date. Debt instruments typically have a fixed maturity date, while equity instruments do not mature. Because they do mature, debt instruments set forth the redemption requirements and one of the most common requirements is the establishment of a sinking fund in order to insure that funds will be available for the redemption.

2. Claim on assets. In the event of liquidation creditors' claims take precedent over the owners. There are two extreme interpretations of this factor. The first is that all claims other than

the first priority are equity claims. The other is that all claims other than the last are creditor claims. The problem area is everything between these two extremes: those claims which are subordinated to the first claim but prior to the last claim.

3. Claim on income. A fixed dividend or interest rate which has preference over other dividend or interest payments and which is cumulative in the event it is not paid for a particular period is considered to indicate a debt security. On the other hand, a security which does not provide for a fixed rate, or provides that the holder has the right to participate with common stockholders in any income distribution, or if the claim is subordinate to other claims may indicate an ownership interest.

4. Voice in management. The usual determinant of a voice in the management of a corporation is voting right and this right is normally limited to common stockholders, but it may be extended to other investors if the company defaults on some pre-determined conditions. For example, if interest is not paid when due or profits fall below a certain level, voting rights may be obtained.

5. Maturity value. A liability has a fixed maturity value and in addition the value does not change throughout the life of the liability unless the company encounters serious financial problems. The owners' interest does not mature, except in the event of liquidation; consequently there is no maturity value. The owners have a continuing financial interest in the corporation, however, and the value of that interest fluctuates with present and expected future earnings.

6. Intent of parties. The courts have determined that the intent of the parties is one factor to be evaluated in ruling on the debt or equity nature of a security. Investor attitude and investment character are two sub-factors which should provide some assistance in this context. Investors may be divided into those who want safety and those who want capital growth and the investments into those which provide either safety or an opportunity for capital gains or losses. If the investor was motivated to make a particular investment on the basis of safety and if the corporation included inthe issue those features normally equated with safety then there is an indication that the security is a debt rather than equity.

7. Pre-emptive right. A security which is included in the pre-emptive right of common stockholders may be considered to have an equity characteristic.

8. Name of security. The name given to the security, for example, bond or stock, is another of the legal factors to be considered. This also appears, based on the minimum discussion of characteristics, to have substantial accounting support in determining the classification of certain securities.

9. Conversion features. A security which may be converted into common stock at least has the potential to become equity if it is not currently equity. A historical study of eventual conversion or liquidation may be useful in evaluating this particular factor.

10. Potential dilution of earnings per share. This factor might be considered as a sub-factor of number 9 because the conversion feature

of a security is the most likely cause of dilution of earnings per share, other than a new issue of common stock. In any event a security which has this potential is assumed to have equity characteristics.

11. Right to enforce payments. From a legal point of view creditors have the right to receive periodic interest at the agreed upon date and to have the maturity value paid at the maturity date. The enforcement of this right may result in the company being placed in receivership. Owners have no such legal right; therefore the existence of this right is an indication of a debt instrument. On the other hand a determination of the nature of the security may be necessary in order to know whether the right exists.

12. Good business reasons for issuing. The determination of what constitutes good business reasons for issuing a particular security rather than one with different features presents a difficult problem. Two sub-factors which appear relevant are the alternatives available and the level of capitalization. Securities issued by a company in financial difficulty or with a low level of capitalization may be ruled as an equity on the grounds that only those with an ownership interest would be willing to accept the risk.

13. Identity of interest between creditors and owners. When the individuals who invest, through the pre-emptive right or otherwise, in so-called debt securities are the same individuals, or family members, who hold the common stock there is an indication that the security represents an ownership interest.

It is not at all clear to what extent the above set of factors must be present, or absent, in determining whether a security represents equity or indebtedness. The set does provide a useful frame-of-reference or guide-to-action in any attempt to evaluate a particular security however, assuming that they are the appropriate factors.

CHAPTER 5

EMPIRICAL DATA ON CONVERTIBLE SECURITIES

The set of decision factors developed in the previous chapter provides a general framework for evaluating all investor interests in the corporation in order to determine the debt or equity nature of each specific interest. In this chapter the general framework will serve as a guide for the collection of empirical data concerning the investor interest reflected by convertible securities and for the evaluation of that data.

It should be pointed out that the data collection process will give relatively more emphasis to those convertible securities which were issued during 1968 in order to more clearly establish the current characteristics of such securities. In addition, relatively more attention will be given to convertible bonds than to convertible preferred stocks because the discussion, by the Accounting Principles Board and others, concerning the appropriate accounting treatment of convertibles has centered on convertible bonds and not convertible preferred stocks. The information provided by a study of the new issues will be supplemented with other data developed from lists of outstanding convertibles and by reference to some previous empirical studies and other sources which will help establish the historical perspective of convertibles.

Moody's Bond Survey,[1] a weekly publication, provides descriptive information about new bond issues and during 1968 a total of 266 new issues were described, of which 76 were convertible. That publication does not include all new bond issues, but it apparently includes most, if not all, of the major issues. Therefore, the 76 which were convertible should provide a valid sample for this study.

Table 5-1 provides information about the distribution of total new issues among public utilities, transportation, and industrials, as well as the number of convertibles[2] which each sector issued. It is interesting to note that while the public utilities issued approximately 50 percent of the new issues, only 3 percent were convertible. In contrast almost two-thirds of the industrial issues were convertible. A list of the companies which issued the convertible bonds is provided in the appendix.

TABLE 5-1

NEW BOND ISSUES 1968

SECTOR	TOTAL NEW ISSUES	NO. OF CONVERTIBLES	PERCENT CONVERTIBLE
Public Utilities	134	4	3
Transportation	31	8	26
Industrials	101	64	63
Total	266	76	31

SOURCE: Compiled from information provided in *Moody's Bond Survey* (January-December 1968).

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[1] *Moody's Bond Survey* (January-December 1968).

[2] The Santa Fe Industries, Inc., issue was an exchange; therefore much of the information will not be available until the exchange is

The sample of 1968 convertible preferred stock issues was developed by first listing all such issues included in the "Corporate Financing Directory"[3] for 1968 and narrowing the list to those companies which were included in either Moody's Industrial Manual[4] or Standard and Poor's.[5] On the assumption that these publication include the more prominent companies the sample of 35 issues, out of 63, is biased only by the exclusion of less prominent companies. A list of the sample companies which issued convertible preferred stocks is also provided in the appendix.

Table 5-2 presents information about the issue size and the total amount for 75 of the convertible bonds issued during 1968. Table 2-1 provided information about the relative increase in number and amount of outstanding convertible securities over a 19-year period. When compared to an earlier study by Broman,[6] Table 5-2 complements Table 2-1. According to that study there were 68 convertible subordinated debenture bond issues of $10 million or more issued between

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completed. As a result several of the tables will include only 75 companies. In other cases the tables will include fewer companies because of unavilable information.

[3]"Corporate Financing Directory," Investment Dealers' Digest (September 9, 1968, and March 3, 1969).

[4]Moody's Industrial Manual (1968 and 1969).

[5]Standard and Poor's Corporate Descriptions (1968 and 1969).

[6]Keith L. Broman, "The Use of Convertible Subordinated Debentures by Industrial Firms, 1949-59," Quarterly Review of Economics and Business, Vol. III (Spring, 1963), p. 65.

1951-59. In contrast, 70 of the new bonds included in Table 5-2 were subordinated debentures and 63 of those were $10 million or over in issue size.

TABLE 5-2

ISSUE SIZE AND TOTAL AMOUNT OF
75 CONVERTIBLE ISSUES

SIZE OF ISSUE (MILLION)	NUMBER	TOTAL AMOUNT (MILLION)
Less than $10	8	$53.6
10-19.9	26	346.7
20-29.9	18	414.1
30-39.9	7	215.0
40-49.9	2	81.4
50-59.9	6	302.7
60-69.9	5	300.0
70-79.9	1	75.0
Over 100.	2	274.6
	75	$2,063.1

SOURCE: Compiled from information provided in Moody's Bond Survey (January-December 1968).

Table 5-3 presents the risk rating of the 76 new issues of convertible bonds, 338 outstanding convertibles, and the 190 new issues of non-convertible bonds. A comparison of the ratings clearly indicates that the rating service generally considers convertibles to reflect a higher degree of risk than non-convertibles. The non-convertibles have a grade of A or higher in 82 percent of the cases, while less than 3 percent of the convertibles have such a rating.

TABLE 5-3

RISK RATING OF BOND ISSUES

MOODY'S RATING	CONVERTIBLE ISSUES 1968	O/S CONVERTIBLE ISSUES 12-16-68	NON-CONVERTIBLE ISSUES 1968
Aaa			31
Aa			71
A	2	10	55
Baa	10	33	18
Ba	25	157	4
B	30	106	4
Caa		2	
Not Rated	9	30	7
Total	76	338	190

SOURCE: Compiled from information provided in Moody's Bond Survey (January-December 1968).

Higher risk bonds typically require a higher interest rate. In the case of convertibles however, the interest rate is lower, not higher, than the average rate on higher grade bonds. The average interest rate for the 76 new issues was 5.21 percent, with a range from 3.75 to 7.00 percent. On the other hand the 1968 range for all corporate bonds with ratings from Aaa to Baa was from 6.64 to 6.33 percent.[7] The generally lower rating of the convertible bonds means that, exclusive of the conversion feature, these bonds would require a higher interest rate than the range given for the above higher rated bonds. Table 5-4 presents information concerning the 63 convertible bonds for which Moody's suggested a maturity yield

[7] Moody's Stock Survey (November 11, 1968), p. 419.

exclusive of the conversion feature. The average maturity yield, exclusive of the conversion feature, is 7.27 percent in contrast to the average stated interest rate of 5.12 percent for the same issues, a difference of 2.15 percent.

TABLE 5-4

INTEREST RATES WITH AND WITHOUT CONVERSION FEATURE

MATURITY YIELD EXCLUSIVE OF CONVERSION FEATURE	NUMBER	STATED INTEREST RATE	NUMBER
8.00-8.25%	6	5.75-6.00%	12
7.75-7.90	11	5.125-5.50	15
7.30-7.50	12	4.75-5.00	28
7.00-7.25	19	3.75-4.50	8
6.25-6.90	15		
	63		63

SOURCE: Compiled from information provided in Moody's Bond Survey (January-December 1968).

The face value of those 63 bond issues included in Table 5-4 totaled $1,789 million; therefore the average difference of 2.15 percent means a savings of approximately $38.5 million in interest expense per year to the corporations. One example of how an individual company benefited is provided by the J. C. Penny Company issue of $125 million at 4.25 percent interest. This issue was rated A, the highest rate of any of the convertibles, and consequently deserved a maturity yield, exclusive of conversion rights, of 6.40 percent. The difference in interest rate of 2.15 percent means an annual savings to the company of $2.7 million. On a smaller scale the $20 million Saturn Industries

convertible issue has an interest rate of 5 percent with a B rating. Exclusive of the conversion feature the bonds should yield 8 percent; therefore the 3 percent difference provides an annual savings of $600 thousand.

Another example of the lower interest rate obtainable through the conversion feature is the White Motor Corporation. That company issued $25 million in convertible bonds at an interest rate of 5.25 percent and at the same time issued $25 million in non-convertible bonds at an interest rate of 6.50 percent. The annual savings in interest expense for the convertible issue is $313 thousand.

The substantial reduction in interest cost which can be obtained through the inclusion of the conversion feature provides some insight into why corporations issue convertible bonds. In addition, the information suggests something about the attitude of investors. Obviously if investors are willing to invest in a higher risk security that pays less interest than a lower risk security they are motivated by factors other than the interest rate and risk. The most reasonable conclusion is that they are motivated by the possibility of capital growth through the conversion feature.

Considering the fact that companies can obtain a low interest rate for convertible bonds and the interest expense can be deducted for income tax purposes there is some question concerning why convertible preferred stocks would be issued when the dividend payments cannot be deducted for tax purposes. One answer which is sometimes

offered is that the requirement to pay preferred dividends is less stringent than the requirement to pay bond interest.

According to the information presented in Table 5-5, however, the majority of convertible preferred stocks are cumulative, in which case, while they do not have to be paid on a specified date, the requirement to pay dividends can only be postponed, not avoided, except by never paying any dividends to the common stockholders.

TABLE 5-5

CUMULATIVE PROVISION OF CONVERTIBLE PREFERRED STOCKS

	NUMBER ISSUES 1968	PERCENT	O/S INDUSTRIAL CONVERTIBLE STOCKS	PERCENT
Cumulative	31	89%	307	69%
Non-Cumulative	4	11	139	31
	35	100	446	100

SOURCE: Compiled from information provided in "Corporate Financing Directory," Moody's Industrial Manual, and Standard and Poor's Corporate Descriptions (1968-1969).

Table 5-6 presents information concerning the purpose of the 1968 convertible preferred stock issues and this information may provide some insight into why corporations choose this method of financing. Approximately two-thirds of the new convertible preferreds were issued in connection with acquisition activities. According to one source there are numerous reasons why "Convertible preferred stock has become a popular financial medium of exchange for acquisition-minded companies

in recent years."[8] It was pointed out that:

> An acquisition employing a convertible preferred stock has many of the benefits of using cash or a debt instrument. Common stock earnings per share dilution may be avoided, initially at least, because no new common shares have been issued; a pooling of interest accounting generally is possible, thus side-stepping the problem of goodwill; and the sellers can be offered a tax-free transaction that may assist in negotiating a more favorable purchase price. Further, the preferred stock, being classified as equity, does not encumber the corporation's borrowing capacity nor reduce its liquidity, as a cash deal might.[9]

TABLE 5-6

PURPOSE OF CONVERTIBLE PREFERRED STOCKS

PURPOSE OF ISSUE	NUMBER	PERCENT
Acquisition Activities	23	66%
Reduce Short-Term Debt	7	20
Exchange for Convertible Debt	2	6
Miscellaneous (General Purposes)	3	8
	35	100

SOURCE: Compiled from information provided in "Corporate Financing Directory," Moody's Industrial Manual, and Standard and Poor's Corporate Descriptions (1968-1969).

It thus appears that accounting treatment rules, especially those pertaining to pooling of interests and equity classification, are major

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[8]Robert W. Ackerman and Lionel L. Fray, "Financial Evaluation of a Potential Acquisition," Financial Executive (October 1967), p. 50.

[9]Ibid., p. 50.

causal factors for the issuance of convertible preferred stock.

As discussed previously, the stated interest rate is lower for convertible bonds than for non-convertibles. In addition the yield to maturity will be even lower if the bond, or preferred stock, is acquired after the market price of the convertible has risen above face value, and the price will rise if the market value of the stock into which they are convertible increases. This is one of the characteristics of convertible securities; their market price moves up or down in line with the common except that on the downside there is a floor established by the straight debt or straight preferred stock value. Table 5-7 presents a comparison of the average yield of convertible bonds and convertible preferred stocks with the estimated yield from the common stocks into which they are convertible. On an individual basis the preferred yield was higher than the corresponding common yield in 310 cases, the same in 9 cases, and lower in 24 cases. The bonds provided a higher yield in 521 cases, the same in 2 cases, and lower in 21 cases.

TABLE 5-7

AVERAGE YIELD OF CONVERTIBLES VS. COMMON

NO. CONVERTIBLES	YIELD	ESTIMATED YIELD OF COMMON STOCK
343 Preferred Stocks	3.38%	1.94%
544 Bonds	4.21	1.24

SOURCE: Compiled from information provided in RHM Convertible Survey (December 13, 1968).

The original suspension of that portion of the Accounting Principles Board Opinion No. 10 which pertained to convertible securities, which was discussed in Chapter 3, apparently was predicated upon the asserted "practical difficulties in arriving at a value to place on the conversion feature of convertible debentures through the process of relating the convertible debenture price to the price of a straight debt security without the conversion feature."[10] The question of "practical difficulties" was raised by several large investment banking firms. In the final suspension of the opinion the Board placed "greater weight on the inseparability of the debt and equity characteristics and less weight on practical difficulties."[11]

Despite the above comments from the Accounting Principles Board, writers in areas other than accounting frequently determine the valuation of convertible securities. Two examples of theoretical models for valuation are the Baumol, Malkiel, and Quandt[12] model and the model developed by Brigham.[13] In addition to these theoretical models, and of more pertinence to the question of practical difficulties

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[10]Leonard M. Savoie, "Controversy Over Accounting Principles Board Opinions," The Journal of Accountancy (January 1968), p. 40.

[11]American Institute of Certified Public Accountants, Accounting Principles Board, "Opinion No. 14: Accounting for Convertible Debt and Debt Issued with Stock Purchase Warrants" (March 1969).

[12]William J. Baumol, Burton G. Malkiel, and Richard E. Quandt, "The Valuation of Convertible Securities," Quarterly Journal of Economics, Vol. LXXX (February 1966), pp. 48-59.

[13]Eugene F. Brigham, "Analysis of Convertible Debentures: Theory and Some Empirical Evidence," Journal of Finance, Vol. XXI (March 1966), pp. 35-54.

and inseparability, the investment statistical services constantly make determinations of the approximate straight debt value of convertible bonds. Table 5-8 presents a summary of the straight debt value of 63 new convertible issues and, assuming they were offered at 100, the premium which was paid.

TABLE 5-8

STRAIGHT DEBT VALUE OF CONVERTIBLES

NUMBER OF ISSUES	STRAIGHT DEBT VALUE	PREMIUM	PREMIUM AS A PERCENTAGE
1	64.875-67.500	35.125-32.500	54.1-48.1
7	67.750-70.500	32.250-29.500	47.6-41.8
13	71.625-73.875	28.375-26.125	39.6-35.4
14	74.250-76.875	25.750-23.125	34.7-30.1
11	77.000-79.000	23.000-21.000	29.9-26.6
4	79.500-80.000	20.500-20.000	25.8-25.0
9	80.500-84.250	19.500-15.750	24.2-18.7
3	85.000-85.750	15.000-14.250	17.6-16.6
1	90.625-	9.375	10.3
63			

SOURCE: Compiled from information provided in Moody's Bond Survey (January-December 1968).

The average straight debt value of the 63 new convertible bond issues was 76.38 and in a recent listing of 338 convertible bonds, of which 305 had an approximation of the straight debt values, the average value was 75.[14] The average market value for those same 305 outstanding issues was 126. This means that on the average 59.5 percent of the total market value of convertible bonds is attributable

[14] Moody's Convertible Bonds (December 16, 1968).

to the straight debt while 40.5 percent is a result of the conversion feature.

Table 5-9 presents market value information for all convertible bonds which were being actively traded as of December 13, 1968. The average market value for the 544 issues was 143; therefore for this larger sample, and using the same straight debt value of 75 which was derived above, approximately 52.5 percent of the market value of these convertible bonds results from the straight debt aspect of the securities and 47.5 percent results from the conversion feature.

TABLE 5-9

MARKET VALUE OF CONVERTIBLE BONDS
DECEMBER 13, 1968

MARKET VALUE	NUMBER	PERCENT
Below 100.1	122	22.4%
100.1 - 125.0	202	37.1
125.1 - 150.0	79	14.5
150.1 - 175.0	47	8.7
175.1 - 200.0	27	5.0
200.1 - 300.0	44	8.1
300.1 - 400.0	7	1.3
400.1 - 500.0	10	1.8
500.1 - 600.0	5	.9
700.1 - 800.0	1	.2
	544	100.0

SOURCE: Compiled from information provided in RHM Convertible Survey (December 13, 1968).

The Accounting Principles Board has ruled that when a convertible issue derives more than 50 percent of its value from the conversion

feature the security should be treated as a residual in determining earnings per share. The information presented in Table 5-9 indicates, using a straight debt value of 75 as the base, that 141, or 26 percent, of the issues probably meet this test and another 79 are reasonably close to meeting the test. The total face value of the 141 outstanding issues is $973.2 million; therefore the shares of common stock necessary for the conversion of that amount of bonds should be treated as a part of the total residual securities in the calculation of earnings per share, according to the test established by the Board.

Table 5-4 presented information concerning the stated interest rate for convertible bonds along with an approximation of what maturity yield would have been justified exclusive of the conversion feature. This information suggests that the corporation may reduce the cost of capital, raised by bond issues, by a substantial amount through the inclusion of the conversion feature. Table 5-10, on the other hand, presents information which provides insight into why a corporation may issue convertible bonds even though a common stock issue might be desired. The information reflects the conversion premium, which is determined by dividing the conversion price by the market price of the common stock which exists at the date of sale. It is assumed, for the purpose of the table, that the then existing common stock price would not be depressed by the issuance of a new block of stock. The average conversion premium for the 70 new issues was 12.8 percent with a range from minus 5.8 percent to 22.7 percent and all except 5 issues had a premium above 5 percent.

TABLE 5-10

CONVERSION PREMIUM

PREMIUM	NO. OF ISSUES	PERCENT
(5.8) - (1.4)	2	2.9%
1.8 - 5.0	3	4.3
5.1 - 10.0	10	14.3
10.1 - 12.0	14	20.0
12.1 - 14.0	12	17.1
14.1 - 16.0	15	21.4
16.1 - 20.0	7	10.0
20.1 - 22.7	7	10.0
	70	100.0

SOURCE: Compiled from information provided in Moody's Bond Survey (January-December 1968).

The issue with the minus 5.8 percent premium was the American Broadcasting Company's $50 million convertible subordinated debentures offered to the stockholders at 100 on June 28, 1968. It is obvious that a corporation would not deliberately offer bonds which were convertible at a price below the then existing market price of the common stock. The explanation in this particular case is that the Hughes Tool Company made a tender offer of $74.25 for 42.4 percent of the outstanding common stock. The offer price, which evidently came after the conditions of the bond issue had been announced but prior to the issue date, pushed the market price of the common stock above the $65 conversion price. The increase in the market price of the common also had the effect of pulling the market price of the bonds up to around 111 when they were offered to the stockholders at 100.

The J. C. Penney Company issue, referred to previously, serves as a good illustration of why it may be advantageous for the corporation to issue convertibles even though a common stock issue is desired. In the case of this $125 million issue the conversion premium was the highest of all the issues, 22.7 percent based upon a conversion price of $100 when the market price of the common stock was $81.50. In order to raise the $125 million of new capital through a common stock issue, 1,533,730 new shares of common would have been required, assuming that such a large block of new shares would not have depressed the market price. On the other hand, full conversion of the bonds at $100 would require 1,250,000 shares of common, a difference of 283,730 shares. The convertible issue thus provided an advantage over a direct common stock issue and saved the company approximately $2.7 million annually in interest expense compared to a non-convertible bond.

In connection with the discussion of conversion prices and premium it should be pointed out that 75 of the 76 new bond issues were convertible to maturity and the conversion price of 73 of those issues does not change during the life of the bond. This means that the "sliding scale" conversion price is no longer a common characteristic of convertible bonds. One exception is the Apco Oil Corporation issue which permits conversion at $36 per share for the first 10 years and then at $40 per share to maturity. The other exception is the El Paso Natural Gas Company which permits conversion at $22.73 per

share for the first 10 years and then at $26.32 per share to maturity. The one issue with a limited conversion privilege is the Santa Fe Industries exchange which is convertible during the first 20 years of the 30-year maturity.

The increase in common stock which would result from the full conversion of 73 of the new convertible bond issues is shown in Table 5-11. In addition to the increase which would result from the full conversion of these new issues at least 15 of the corporations have other outstanding convertible issues. Therefore the potential increase is even greater than indicated in Table 5-11.

TABLE 5-11

INCREASE IN COMMON STOCK UPON FULL CONVERSION

PERCENTAGE INCREASE	NO. OF ISSUES	PERCENT OF ISSUES
Less than 5%	2	2.7%
5.0 - 10.0	17	23.3
10.1 - 15.0	20	27.4
15.1 - 20.0	11	15.1
20.1 - 25.0	8	11.0
25.1 - 35.0	9	12.3
35.1 - 50.0	6	8.2
	73	100.0

SOURCE: Compiled from information provided in Moody's Bond Survey (January-December 1968).

One of the corporations which have other outstanding convertibles is Chris-Craft Industries. Full conversion of its recent $26 million bond issue at $42 per share would require 619,048 additional

shares of common stock, an increase of approximately 44.5 percent. In addition, the corporation has outstanding convertible preferred stocks which would require 962,877 additional shares of common for full conversion, an increase of approximately 69.2 percent. Full conversion of the bonds and preferred stocks would therefore increase the outstanding common stock by 113.7 percent.

Table 5-12 provides information about the call provision of convertible securities. All of the recent convertible bond issues have a call provision and 30 of the 35 preferred stock issues indicated such a provision. Information was not readily available concerning the other 5; however, it is reasonable to assume that they also were callable. The bond issues are about evenly divided between those which require a 30-day notice and those which require from 30 to 60 days' notice concerning the call. Eleven of the bond issues have a delay of from 6 months to 5 years before the call privilege becomes effective while 19 of the preferred stocks have a delay of from 2 to 7 years. The bond issues provide for a call premium which usually begins at the coupon interest rate and declines gradually to the face value.

In order to illustrate the significance of the call provision, Table 5-13 presents certain information about 43 convertible bond issues for which a call was announced during 1968. An examination of that information clearly indicates that the rational bondholder is confronted with two alternatives: he can convert his bonds into common stock prior to the call date or he can find a buyer for his bonds who will, in turn, convert them into

TABLE 5-12

CALL PROVISION OF CONVERTIBLE SECURITIES

CALL PROVISION EFFECTIVE	BONDS	PREFERRED STOCKS
Immediately (30-60-day notice)	65	11
After 6 months	1	
1 year	4	
2 years	2	3
4 years		1
5 years	4	11
6 years		3
7 years		1
	76	30

SOURCE: Compiled from information provided in Moody's Bond Survey (January-December 1969), Moody's Industrial Manual and Standard and Poor's Corporate Descriptions (1968-1969).

common stock. In either event the net result is the conversion of the bonds into common stock. The excess of common stock value over the call price indicates that this will happen because to do otherwise would mean a financial loss to the bondholders.

The table also shows that the bonds were called from 5 to 31 years prior to maturity and on the average were called approximately 15 years prior to the maturity date. In one case the bonds had been outstanding only 5 months when they were called. The market value of the common stock had risen in that case to the point where each bond could be converted into shares worth $1500 while the call price was 104, or a value of $1,040.

It may also be noted that the value of the common stock was more than 20 percent greater than the call price for 34 of the above

TABLE 5-13

CALLED CONVERTIBLE BONDS 1968

CALL PRICE	COMMON VALUE	DIFFERENCE	YRS. TO MATURITY
101.50	1028	13	5
103.00	1080	50	19
100.00	1053	53	18
106.50	1125	60	19
104.50	1115	70	14
104.50	1144	99	15
104.50	1154	109	24
104.25	1156	114	24
105.00	1204	154	12
102.00	1231	211	8
104.72	1261	214	23
104.00	1261	221	11
103.50	1289	254	24
110.00	1371	271	5
105.50	1333	278	19
104.07	1344	303	24
103.42	1352	318	14
105.50	1395	340	24
104.50	1419	374	19
104.50	1425	380	18
103.50	1416	381	7
104.00	1500	460	24
103.50	1500	465	13
103.00	1538	508	7
103.00	1568	538	13
105.57	1618	562	13
104.50	1750	705	19
101.00	1750	740	4
101.00	1818	808	6
105.00	1942	892	11
103.00	1965	935	9
103.00	2237	1207	8
102.75	2395	1367	12
105.50	2459	1404	19
101.12	2415	1404	31
103.00	2436	1406	12
103.87	2649	1610	12
104.50	2666	1621	9
103.12	2798	1767	25
104.70	2917	1870	18
102.50	3333	2308	7
103.10	3716	2685	3
106.00	4264	3204	6

SOURCE: Compiled from information provided in Moody's Bond Survey (January-December 1968).

called issues. Financial writers frequently recommend that the corporation not issue a call unless the common stock value is at least 20 percent above the call price. The rationale underlying this recommendation is that the stock price may fall between the announcement and the call date and the corporation would be faced with the problem of redeeming the securities when it had been expected that conversion would take place. Of course, if the intent was to redeem the securities, rather than issue common stock, the corporation would not be concerned with this potential problem.

Table 5-14, for convertible bonds, and Table 5-15, for convertible preferred stocks, provide certain information pertaining to the timing of conversion and the outcome of some redemption calls during the past several years in order to develop a historical perspective of conversion. The sample companies included in the tables were randomly selected through the following process: first, data for 629 companies was obtained from the Compustat tape; of these, 268 companies had convertible securities outstanding sometime between 1948 and 1967; of those, 148 companies eliminated the convertibles either by conversion or redemption; the final 24 companies were selected from those 148.

The average maturity life of the bonds in Table 5-14 was 23.5 years, but the average effective life was only 4.7 years. The preferred stocks, while not having a maturity date, had an average effective life of 5.9 years. It is worth noting that one of the bonds,

TABLE 5-14

TIMING OF CONVERSION BONDS

NOTE	ISSUE DATE	DUE DATE	AMT. (MIL.)	PERCENT OUTSTANDING END OF EACH YEAR AFTER ISSUANCE 1	2	3	4	5	6	7	8	9	10	11
1	1955	1975	$25.0	92.0	91.6	88.0	84.0	80.0	72.0	68.0	63.6	61.6	-0-	
2	1955	1980	190.2	73.3	17.8	12.1	8.0	8.0	8.0	8.0	8.0	8.0	-0-	
3	1963	1983	10.0	100.0	-0-									
4	1958	1978	2.9	93.1	89.6	-0-								
5	1957	1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-0-			
6	1950	1975	75.1	-0-										
7	1953	1983	162.1	96.5	-0-									
8	1957	1987	171.6	100.0	99.9	99.9	99.8	99.7	99.7	99.6	99.6	99.5	95.6	-0-
9	1952	1967	2.0	100.0	-0-									
10	1959	1984	24.4	100.0	100.0	100.0	100.0	100.0	100.0	-0-				
11	1953	1977	20.0	100.0	100.0	100.0	95.0	90.5	89.5	85.0	79.5	74.5	70.0	-0-
12	1961	1980	16.1	80.1	-0-									
Number outstanding				11	7	6	6	6	6	5	4	4	2	-0-
Av. percent outstanding				86.2	49.5	41.7	40.6	39.9	39.1	30.0	20.9	19.9	13.8	-0-

Notes: (1) In May, 1964, conversion price was reduced from $28.37 per share to $20; entire issue called July 31, 1965, at 101.25; issued 303,600 shares on conversion of $6,072,000; remainder redeemed. (2) When conversion right expired on May 1, 1965, all except $3,269,000 of the issue had been converted. (3) Issue was called August 23, 1965, and all except $8,640 was converted. (4) Entire issue was converted into common. (5) Issue was called September 23, 1965, and entire issue was converted. (6), (7), and (8) involved the same corporation. (6) $74,508,600 was converted and the balance of issue redeemed in 1951. (7) $160,392,900 was converted and the balance of the issue was redeemed in 1955. (8) $66,523,200 converted prior to 12-31-67; remainder called and virtually all was converted into common. (9) Called 5-5-54 at 102.75 and entire issue was converted. (10) Called 1-28-66 at 103.50 and was converted. (11) Called for redemption and was fully converted. (12) Called and all but $619,675 was converted.

SOURCE: Compiled from Compustat and Standard and Poor's Corporate Descriptions.

TABLE 5-15

TIMING OF CONVERSION PREFERRED STOCKS

NOTE	ISSUE DATE	AMT. (MIL.)	PERCENT OUTSTANDING END OF EACH YEAR AFTER ISSUANCE 1	2	3	4	5	6	7	8	9
1	1959	$ 5.9	100.0	100.0	100.0	100.0	100.0	-0-			
2	1955	25.4	100.0	100.0	98.8	98.8	97.1	91.6	86.5	86.5	-0-
3	1957	10.5	99.0	-0-							
4	1957	17.1	100.0	100.0	100.0	100.0	100.0	100.0	97.1	-0-	
5	1948	5.1	98.0	76.5	52.9	51.0	47.0	39.2	-0-		
6	1948	6.8	100.0	100.0	100.0	100.0	100.0	76.5	-0-		
7	1957	25.1	100.0	100.0	100.0	98.0	95.6	93.6	91.2	61.4	-0-
8	1958	20.1	100.0	100.0	100.0	100.0	100.0	-0-			
9	1955	1.1	72.7	63.6	63.6	36.4	27.3	27.3	27.3	-0-	
10	1961	5.0	100.0	80.0	80.0	80.0	-0-				
11	1948	3.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
12	1951	10.2	100.0	100.0	-0-						
Number outstanding			12	11	10	10	9	7	5	3	1
Av. percent outstanding			97.5	85.0	74.4	72.0	63.9	44.0	33.2	20.7	8.3

Notes: (1) Fully converted. (2) Called 8-28-64 and fully converted. (3) All except 132 shares were converted. (4) All except 1,626 shares were converted. (5) All except 3,210 shares were converted. (6) All except 999 shares were converted. (7) Information not available concerning amount of final conversion. (8) Information not available concerning amount of final conversion. (9) Fully converted. (10) Fully converted. (11) Balance was reduced to 42.8 percent prior to redemption on 11-1-61. (12) Fully converted prior to redemption date of 3-31-55.

SOURCE: Compiled from Compustat and Standard and Poor's Corporate Descriptions.

a $75.1 million issue, was completely cleared during the first full year after issuance and all except $600,000 of the issue was converted into common stock. In addition, four bond issues and one preferred stock issue were cleared during the second year after issuance.

The purpose of Table 5-16 is to reflect the subjective evaluation of the new convertible bond issues from an investment point of view. Inasmuch as the evaluation is subjective, quantification is impossible. Nevertheless, the comments offer some insight into the nature of convertibles. Comments such as those in Table 5-16 were not offered for every new issue; however, the sample does suggest a general pattern. That is, the bonds are evaluated from the standpoint of speculative capital gain potential. This seems appropriate in view of the fact that the convertibles typically are rated as higher risk than non-convertibles yet the interest rate is usually lower. The investors must be interested in the speculative gain potential.

TABLE 5-16

COMMENTS ABOUT CONVERTIBLE ISSUES

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1. At current levels we do not view the debentures as attractive for speculation.

2. At this stage of the company's development, we view its convertible debentures as distinct risk obligations.

3. The debentures represent a speculation on the capital gain potential of the conversion privilege on a strictly long-term basis.

TABLE 5-16 (continued)

4. We view the pure debt aspects of the debentures as tending to support speculative commitments.

5. Inclined to evaluate the new convertible debentures on the negative side from the standpoint of price appreciation.

6. Have appeal, but only on a strictly speculative basis.

7. The conversion call on common may prove productive of capital gain.

8. Lack appeal partly because of potential increase in common shares.

9. Involves above average speculative risk.

10. The convertibles afford institutional and other investors who cannot make direct commitments in equity securities an opportunity to participate in the growth prospects of the company.

SOURCE: Compiled from information provided in Moody's Bond Survey (January-December 1968).

Table 5-17 presents information about the sinking fund provisions, or lack of it, for the recent convertible bonds. It is apparent that the sinking fund requirement does not usually become effective for 10 to 11 years after the issue date.

Table 5-18 presents information concerning the extent to which the recent convertible bonds were offered to stockholders. The percentage of new convertible bond issues which were offered to the common stockholders reflect a noticeable change from previous empirical studies. Broman,[15] for example, found that 35 percent were

[15]Broman, op. cit., p. 69.

TABLE 5-17

SINKING FUND PROVISION

	NUMBER	PERCENT
Sinking fund	68	90.7%
No sinking fund	7	9.3
	75	100.0
DELAY IN SINKING FUND PROVISION		
YEARS		
5-10	12	17.7%
10-12	54	79.4
12-13	2	2.9
	68	100.0

SOURCE: Compiled from information provided in Moody's Bond Survey (January-December 1968).

TABLE 5-18

RIGHTS OFFERING

OFFERED TO	NUMBER	PERCENT
Stockholders	12	15.8%
Public	64	84.2
	76	100.0

SOURCE: Compiled from information provided in Moody's Bond Survey (January-December 1968).

offered to stockholders while Brigham[16] found that 53 percent were offered to stockholders.

Evaluation

Now that certain basic empirical data has been presented convertible securities will be evaluated on the basis of the frame-of-reference established in the previous chapter. Some additional data will be incorporated into the discussion when appropriate. For convenience each factor will be evaluated as if it were the controlling factor.

Maturity Date

It is a well-established fact that convertible bonds have a maturity date, usually 20-25 years from date of issuance and that convertible preferred stocks do not have such a date. If this were the extent of the test of the debt or eqüity nature of securities the evaluation would be a simple matter. The bonds have a maturity date, and maturity date implies debt; therefore, the bonds are debt. The convertible preferreds do not have a maturity date, and neither do common stocks; therefore, the preferreds are equity.

Unfortunately, the evaluation cannot be a simple yes or no. Particularly in evaluating convertible bonds it is necessary to determine whether the maturity date has any significant meaning. If the bonds are not likely to reach maturity, that is, if they are

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[16] Brigham, _op_. _cit_., p. 49.

called or converted prior to maturity, then the existence of a maturity date is meaningless.

Despite investment advice to the contrary, by writers such as Graham, Dodd, and Cottle who pointed out that, "In the typical case, a convertible issue should not be converted by the investor. It should be either held or sold,"[17] it is apparent that in some cases conversion does occur rather completely and rapidly. The case of American Telephone and Telegraph illustrates the point. That corporation issued $10 billion of convertible securities between 1946 and 1957 and by 1959 about 80 percent had been converted. Of course, not all firms can expect to duplicate the conversion speed of one American Telephone and Telegraph convertible bond issue. The issue was offered for sale October 23, 1953, with the conversion right postponed until February 9, 1954. By February 25, 1954, more than 42 percent of the issue had been converted. Moreover, this company is one of the few that requires additional cash payment, because of the level at which the conversion price is established,at the time of conversion, and this brought in an additional $90 million cash.[18]

Table 5-14 and 5-15 provide additional evidence in support of the view that in many cases the holders of convertible bonds and

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[17]Benjamin Graham, David L. Dodd, and Sidney Cottle, Security Analysis (4th ed., New York: McGraw-Hill Book Company, Inc., 1962), p. 35.

[18]C. James Pilcher, Raising Capital with Convertible Securities, Michigan Business Studies, Vol. XII, No. 2 (Ann Arbor: University of Michigan, Bureau of Business Research, 1955), p. 35.

preferred stocks have voluntarily elected to convert their holdings into common stock rather rapidly. Despite all of this evidence concerning conversion nothing has been said about why investors elect to convert their securities. Some conversion undoubtedly occurs simply because the convertibles were purchased with the intention of converting as soon as the conversion price was reached. On the other hand, assuming rational investors, voluntary conversion is most likely a function of risk and yield on investment, though other factors may enter into the decision of individual investors. That being the case it is difficult to understand voluntary conversion.

In comparison with straight debt issues, convertible bonds possess a higher level of risk, but not in comparison with the common stock into which they are convertible. Convertible preferred stocks sometimes have equal preference, to assets and income, with the other preferred stock, and sometimes a lower preference, but in any case the claim is prior to that of the common stock. In addition, once the market price of the common has risen to the conversion price the market price of the convertibles will move up or down in direct relationship to the common. Therefore, if the market price of the common decreases the market price of the convertibles will decrease in a proportionate amount. The decrease is limited, however, by the value of the security as a straight debt instrument or as a straight preferred stock instrument. There is no limit on the upside as evidenced by the market value data shown in Table 5-9 where many of the bonds had

a market value between $2,000 and $8,000. The market value floor thus means that the risk factor for the convertibles is less than the risk factor for the common stock counterpart, therefore conversion should not occur on the basis of risk.

When the market price of the convertible security increases in conjunction with the common, the effective yield on the bond or preferred stock is decreased. If the effective yield reaches the point where it is lower than the common dividend on the shares which would be obtained upon conversion the investor should compare the potential increase in yield with the potential increase in risk. If the increased yield more than offsets the greater risk, in the mind of the investor, voluntary conversion would occur.

The data presented in Table 5-7 above suggests that on the basis of yield voluntary conversion would occur infrequently. It was shown that the average yield for 343 convertible preferred stocks was 3.38 percent, while the average estimated yield on the common into which it was convertible was 1.94 percent. The difference in yield for convertible bonds and common stock was even greater. The average yield for 544 bonds was 4.21 percent and the counterpart common stock yield was 1.24 percent.

There were only 24 cases, out of 343, in which the holders of preferred stock could increase the yield on their investment by converting into common stock. The bondholders could have improved their yield by conversion in only 21 out of 544 cases. Even in those cases

where the investors could receive a higher yield the difference was rather small and may not have been sufficient to compensate for the greater risk.

Inasmuch as purely voluntary conversion seems unlikely in most cases, and yet conversion does in fact occur, some action by the corporation must be responsible for much of the conversion. In that case the conversion would be "voluntary" only because it is the only logical thing to do under the circumstances.

It has been asserted that in a majority of cases corporations desire common stock equity when they issue convertible securities. If this is true then the corporation will be frustrated in its desires since there is little motivation, on the basis of risk and yield, for the investors to convert their holdings. Therefore, in order to accomplish their desired objectives the corporations which want common stock equity may find it expeditious to adopt certain pressure tactics to force investors, who want to retain the senior security, into "voluntary" conversion. Three primary methods, each with several variations, which have been used to exert pressure are: sliding scale conversion prices; call provisions; and common stock dividend policies.

As the name implies, sliding scale conversion prices means that the conversion price increases at stated intervals over the life of the issue. The terms of the sliding scale may be based upon the dollar amount of conversion, the percentage of conversion, or simply

upon a time lapse. An example of the latter is American Machine & Foundry whose subordinated debentures are convertible at $60 until 1971, and then at $65 until maturity in 1981. In 1955, Sunray-Mid-Continental Oil issued preferred convertible into common at $28.75 until one-third of the 956,000 shares had been converted, the price rose to $31.15 for the next one-third and then to $33.54 for the remainder. Another example is the $8,000,000 issue of Hiram Walker-Goderham and Worts which was convertible at $40 for the first $2,000,000 block; at $45 for the second $2,000,000 block; at $55 for the third block; and at $60 for the remainder.

The purpose of the above sliding scales was obviously to stimulate early conversion by giving an advantage to the first group to convert. Once the last phase had been reached there would, of course, no longer be any urgent reason for early conversion.

Despite the fact that sliding scales are probably effective pressure mechanisms the survey of recent convertible issues indicates that corporations have generally discontinued the use of this device for forcing conversion. Only 2 of the 76 companies surveyed had an increase in conversion price and that was a one-time increase. Two possible explanations for the discontinuance of sliding scales are that, first, the inclusion of such a provision may have proved a deterrent to marketing the securities. Secondly, the inclusion of such provisions meant that the corporation had to make a current determination of when in the future it preferred conversion, particularly

if the sliding scale were related to time. In later years this pre-determination may turn out to be an inappropriate time for conversion, from the corporation's viewpoint.

By using the call feature as its pressure tactic the corporation does not lose control over when conversion will occur. The inclusion of a call provision is virtually a universal characteristic of convertible securities as evidenced by recent issues. Many corporations do not call the issues to force conversion, but the ability to do so is present if they so choose.

As was pointed out previously, corporations are frequently advised to withhold a call notice until the conversion value exceeds the call price by approximately 20 percent in order to minimize the risk that the market price of common stock may decline to the point where conversion would no longer be profitable for the holders. Assuming that the 20 percent figure provides adequate protection, the information presented in Table 5-9 indicates that approximately 40 percent of the outstanding bond issues could be called. From the standpoint of evaluating the debt or equity implications of maturity date the fact that these issues have not been called is not as important as the fact that they could be safely called if the corporation so desired.

The above comments should not be construed to mean that corporations do not exercise the call privilege. The information presented in Table 5-13 clearly indicates otherwise. For the 43 call notices shown the market value of the common stock which could be obtained

upon conversion ranged from $13 to $3,204, per bond, above the call price. It seems apparent that a call notice issued under those circumstances will effectively bring about "voluntary" conversion.

The use of the call feature as a pressure tactic to force conversion may be disadvantageous to the corporation because it will mean total and immediate conversion, assuming the above price relationships, when the corporation might prefer a more gradual conversion.

Corporations with outstanding convertible issues may encourage a more gradual conversion, or perhaps total conversion, by increasing the dividend on the common once the conversion price has been reached. The importance of this method was mentioned in the Brigham study referred to previously. He found that 23 percent of the firms indicated they would follow this policy to encourage voluntary conversion.[19] In a footnote Brigham relates how one company obtained conversion. For illustrative purposes it is worthwhile to repeat the footnote at this point:

> One of these firms returned a schedule showing the way voluntary conversion occurred in its case. In September 1964, the common dividend was raised by 25 percent. At this point bondholders would receive about 15 percent more income from dividends on conversion than in interest on the bonds. The conversion value was approximately equal to the market value and exceeded the call price by about 30 percent. Between the time of the dividend increase and the record date of the next quarterly dividend, some 50 percent of the bonds were converted voluntarily, and the company indicated

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[19] Brigham, op. cit., p. 52.

> that these conversions were continuing as additional bondholders recognized the income differential.[20]

The policy of increasing common dividends to encourage conversion may not be particularly conducive to investor goodwill, especially if the dividends are lowered following conversion. Despite the potential problem, it is apparent, as in the above case, that such a policy may effectively accomplish the corporation's purpose. It is interesting to note that while 23 percent of the firms, in the above study, indicated they would follow this policy the data presented previously concerning yield on convertible bonds and preferred stocks in relationship to common suggests that in only 55 cases, out of 887, or 6 percent, is there any possibility that such a policy is being pursued.

Anytime the corporation employs any of the above methods, or any other method, to encourage conversion some ill-will may be created on the part of those investors who want to hold the senior securities. The investor has no obligation to keep the common stock and his changed investment status because he can immediately sell his common stock, but he has lost his senior position and if he chooses to sell his common he must recognize his capital gain for income tax purposes and he must seek a new investment. On the other hand, the sliding scale and call provision are a part of the initial contract and there is no reason why the investor should be critical of the corporation for exercising its legal right. The policy of increasing dividends is the only one of the primary methods which the corporation may arbitrarily exercise.

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[20] Ibid., pp. 52-53.

The conclusion to be drawn from the discussion in this section is that the maturity date of convertible bonds has no operational significance in the evaluation of the debt or equity nature of such securities once the conversion value exceeds the conversion price by the amount of the call premium, which usually begins at the interest rate and declines to zero during the last several years of the bond life. The reason for this is that bonds which fit into this category will never reach the established maturity date. The bondholders may convert at any time, but for sure prior to the bonds maturing at 100, or the corporation may call the bonds and thus force conversion.

Evidence in support of the above conclusion concerning maturity date is provided by Table 5-13 where it was shown that the 43 convertible bonds were called, on the average, 14.6 years prior to their maturity date, and by Table 5-14 and Table 5-15 where it was shown that the average effective life of 12 convertible bonds and 12 convertible preferred stocks was 4.7 years and 5.9 years, respectively. Additional support is provided by Table 5-19 which provides information about the maturity dates of all outstanding convertible bonds which were being actively traded during December, 1968. The table includes those 51 convertible bonds from a total of 544 outstanding issues, which mature during the next ten years. It seems pertinent to the above conclusions to observe that none of the 544 outstanding convertible bonds mature in 1969, and only 2 mature in 1970, and those could not be converted because the common stock market price is

below the conversion price. Furthermore, only 4 of the issues which could be converted, assuming rational investors, mature within five years.

TABLE 5-19

MATURITY DATES

MATURITY DATE	NUMBER WITH COMMON PRICE ABOVE CONVERSION PRICE	NUMBER WITH COMMON PRICE BELOW CONVERSION PRICE
1969	None	None
1970	None	2
1971	1	None
1972	3	3
1973	None	1
1974	3	2
1975	5	1
1976	5	5
1977	10	3
1978	6	1
	33	18

SOURCE: Compiled from information provided in RHM Convertible Survey (December 13, 1968).

Convertible bonds do have a limited life but that is not the asserted test of debt or equity. The test is whether the security has a maturity date which is "known or reasonably determinable."[21] On that basis those convertibles which have a conversion value above the call

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[21]Robert T. Sprouse and Maurice Moonitz, A Tentative Set of Broad Accounting Principles for Business Enterprise, Accounting Research Study No. 3 (New York: American Institute of Certified Public Accountants, 1962), p. 37.

or redemption price are not liabilities because the maturity date is not determinable. Assuming that conversion connotes maturity, the maturity date will be sometime between the date at which the described conversion value arises and the stated maturity date. On the other hand, this maturity date would reflect conversion and not the redemption which is typically the climax of a liability maturity. It would also appear that if the corporation expected redemption rather than conversion the sinking fund provision would not be delayed for the usual 10-11 years, as was indicated in Table 5-17.

Claim on Assets

It has been well established legally that in the event of liquidation of a corporation the claims of creditors take precedence over the claims of the owners. It has therefore been asserted that a test of the debt or equity nature of a security is where it ranks in a liquidation settlement. Supposedly the security is a liability if the holder will receive payment prior to the owners. There are some serious complications involved in the application of this conceptual test because of the number of levels in the distribution hierarchy.

If there were only two levels in the hierarchy the test would consist of simply determining which level received payment first in the event of liquidation and the creditors would be distinguished. There are, however, at least six levels of claims involved in the distribution of liquidation proceeds. The order of the levels from

highest to lowest is: (1) priority claims, for example wages and taxes; (2) claims secured by specific assets; (3) unsecured claims; (4) subordinated unsecured claims; (5) claims of stockholders who have preference as to assets; and (6) claims of common stockholders. Therefore, is it more appropriate to say that claim (1) is debt and claims (2) through (6) are equity or that claims (1) through (5) are debt and claim (6) is equity? In any event claim (1) is debt, based upon the test, because it takes precedenceover all other claims, and claim (6) is equity because it is the last to receive payment. Claims (2) through (5) are the ones which complicate the test because there is a prior claim and a later claim.

Most convertible bonds are subordinated debentures; therefore, they are included in the hierarchy immediately prior to convertible preferred stocks which are includable with the other preferred stocks which have preference as to assets.

It is not possible to reach an objective conclusion concerning the debt or equity nature of convertible bonds and preferred stocks on the basis of their respective claims on assets in the event of liquidation of the corporation. They both have a claim prior to, and subsequent to, other claims. Therefore, to the individual who ascribes to the view that all claims other than the first priority are equity claims, convertibles would be a part of equity, and to the individual who follows the view that all claims other than the last are debt claims, convertibles would be a part of debt. The traditional accounting

treatment of convertibles reflectsneither of these views inasmuch as convertible bonds have been treated as debt and convertible preferred stock as equity.

It seems clear that the test of claim on assets merely serves to rank the claims and that the evaluation of their debt or equity nature is influenced by some preconceived notion of what constitutes debt or equity.

Claim on Income

On the basis of a fixed dividend or interest rate both convertible bonds and convertible preferred stocks would qualify as debt rather than equity. The bond interest is not only fixed, but it must be paid at specified times. The dividends on the preferred stocks are a fixed amount, but it is not required that payments be made; however, since most convertible preferred stocks are cumulative the full amount of dividends must be paid at some time or else the common stockholders cannot receive any dividends.

In order to make an evaluation of this factor, particularly in connection with convertible bonds, it appears that the size of the fixed claim should be considered. It was shown previously that the average interest rate for convertible bonds is substantially lower than the average interest rate for non-convertible bonds of a higher grade. This is the only aspect of this particular test which tends to suggest anything other than treating all convertibles as debt securities.

Voice in Management

The holders of convertible bonds do not typically have any voting rights, the usual determinant of a voice in management, unless the corporation defaults on some predetermined conditions. In 25 of the 35 new convertible preferred stock issues voting rights were included; however, the number of votes per share were not necessarily equal to the number of common shares into which the preferred share could be converted. With or without voting rights the convertible security holders may have an effective indirect voice in the management because the corporate management may be afraid that if these people are offended the corporation will have difficulty raising new capital in the future.

Furthermore, if the convertible security holders do not have voting rights they can acquire such rights whenever they choose, once the conversion price has been attained. The fact that many convertible security holders do not voluntarily elect to convert, as well as the fact that voting common stock could have been acquired as the initial investment, suggests that the voting right may not be of any great concern to such holders.

Maturity Value

Another test for determining the debt or equity nature of a claim is maturity value. A liability claim supposedly has a known maturity value which does not change throughout the life of the liability. An equity interest does not have a maturity value because

it does not mature. Owners are seen as having a continuing financial interest in the corporation and the value of that interest fluctuates with present and expected future earnings.

In order to evaluate this factor it is necessary to determine what is meant by "maturity." If the term means the conclusion of a pre-determined life span then convertible bonds which reach that point in time will be redeemed at a known value and convertible preferred stocks would be excluded from debt because they do not have a pre-determined life span. If the term refers instead to the date of redemption then both convertible bonds and preferred stocks have established prices at which they will be redeemed after a call notice. The call price tends to decrease over time, especially for the bonds, but at any given time the value is known. If conversion implies maturity neither convertible bonds nor preferred stocks have a known value because it is uncertain when conversion will occur and what the market value of the common stock will be at the time it is given in exchange for the bonds and preferred stocks.

The market value of the called convertibles listed in Table 5-13 as well as the market value of all outstanding convertible bonds shown in Table 5-9 indicates that the value at maturity, on the basis of conversion, is indeterminate. Those bonds which have a market value below the conversion price, based upon the market for common, would have a known maturity value just as they have a known maturity date. Once the market price of common has risen above the

conversion price the date and value of maturity cease to be known.

Another aspect of the maturity value test is that equity interest fluctuates with present and expected future earnings. On the basis of this test straight preferred stock and non-convertible bonds would be classified as liabilities because the value of neither is influenced by earnings. Convertible bonds and preferred stocks however, would be classified as equity because the valuesof both are directly influenced by present and expected future earnings in the same way that common stock is influenced. The fluctuation is limited on the downside by the straight debt or straight preferred stock value of the security, whereas common stock has no floor. On the upside, however, the value increases are as great as the common increase.

This factor is seen as a qualification of the claim on income discussed previously. It was agreed that convertible security holders have a fixed periodic claim on income to the extent of the established interest or dividend rate. At this point it is asserted that once the conversion price has been reached the total claim on income is reflected in two ways: the fixed periodic payment and the growth in capital value. If the proprietary theory of accounting is assumed, it follows that convertible security holders have an immediate claim on income which is greater than the periodic payment, but which is obtained indirectly, that is, through the increase in investment value. This is the same end result as that

obtained by the common stockholders when a stable dividend policy is followed.

It should also be noted that much of the discussion pertaining to the maturity date characteristic is also pertinent to maturity value. Those comments, however, will not be repeated in this section.

Intent of the Parties

Despite the fact that the courts have asserted that the intent of the parties should be evaluated in ruling on the debt or equity nature of a security there has been no clear indication of how that intent is to be determined. The most obvious method, but not necessarily the most valid method, of determining intent would be to ask the parties involved. Pilcher conducted a questionnaire survey of 100 corporations to determine their motives for issuing convertibles, 31 of which had issued convertible bonds and 69 of which had issued convertible preferred stocks. He received replies from 75 of the corporations. His questionnaire reflected a presupposition that the two primary motives for such issues are (1) to make the issue more attractive, and (2) to raise common equity capital through a roundabout process.

His letter to the president of each of the 100 corporations posed the question thusly:

> Which played the more important role in the decision by your company to utilize the conversion privilege: The desire to "sweeten" the senior leverage issue,

> thereby making it more attractive to buyers, or the desire to raise common equity on a sort of delayed action basis?[22]

His tabulation of the 75 replies[23] is presented in Table 5-20. Only 64 replies are shown because 11 of the corporations indicated that the two possibilities were equal in importance.

TABLE 5-20

PRIMARY MOTIVATION FOR ISSUANCE OF A CONVERTIBLE SECURITY

TYPE OF SECURITY	TO RAISE COMMON CAPITAL		TO "SWEETEN" SENIOR SECURITY	
	Number	Percent	Number	Percent
Bonds				
First Priority	5	100	0	0
Subordinated	13	76	2	12
Total	18	82	2	9
Preferreds				
First Priority	21	51	12	29
Second Priority	8	68	3	25
Total	29	55	15	29
Total Securities	47	63	17	23

SOURCE: Letters from 75 corporations.

In his analysis of reasons for using convertibles Brigham asserted that "When a firm sells convertibles, it does so for one of two primary reasons: (1) it wants equity capital and believes that convertibles are an expedient way of selling common stock, or (2) it

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[22] Pilcher, _op. cit._, p. 60.

[23] _Ibid._, p. 61.

desires debt but finds that by adding the convertible feature interest costs are reduced substantially. . . 73 percent of the respondents were primarily interested in obtaining equity, while 27 percent used convertibles to 'sweeten' debt issues."[24]

It appears that Brigham may have rather casually introduced a third, and with the current high interest rates perhaps the most important, reason for issuing convertible securities. Writers have long asserted that the conversion feature was used either because the corporation wanted equity capital and for a variety of reasons believed convertibles to be the most advantageous method of selling common stock or else the corporation wanted to issue debt but found it necessary to make the issue more attractive. Thus, the use of the convertible feature as a "sweetener" was seen as being added to issues of corporations with poor credit or a weak financial structure in order to make the issue marketable. The way Brigham expresses it however, the "sweetner" would be voluntarily added to a senior security issue by strong as well as weak corporations in order to gain the reduced interest or dividend rate.

The empirical information presented previously indicates that corporations do reduce interest costs substantially by including the conversion feature. It will be recalled that the approximate savings in interest cost for 63 new convertible bond issues was $38.5 million per year.

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[24]Brigham, op. cit., p. 50.

Those corporations which want common stock equity find convertibles advantageous because as Table 5-10 shows the conversion feature allows the corporation to effectively sell common stock at a premium. The average premium for 70 issues was 12.8 percent with one issue having a premium of 22.7 percent.

In summary, the earlier questionnaire studies indicate that the primary intent of the corporation in issuing convertibles was to raise common stock equity through a roundabout process. The conversion premium enhances the attractiveness of this method. The present data concerning cost suggests that the possibility of obtaining lower interest costs by issuing a convertible security, even though common stock equity is not desired, may be another important motive for the corporation.

Insofar as the intent of the investor is concerned it can be objectively determined that a convertible bond provides greater risk and lower yield than a non-convertible bond while a convertible preferred stock may have no greater risk but does give a lower yield than non-convertible preferred. The only logical conclusion, apparently, is that the individual who invests in convertibles fully intends to acquire more for his money than the specified yield. That something additional is the potential for capital gain which is possible with convertible securities. That potential has in the past been associated only with residual equity securities.

On the basis of the intent of the parties it seems reasonable to conclude that both the corporation and the investor foresee an equity

interest resulting from a convertible security transaction.

Pre-emptive Right

The fact that common stockholders have traditionally had the right to subscribe ratably to any new security issue which could in some way dilute their interest provided a significant test of the debt or equity nature of that security. If the security had the potential to dilute their interest, and therefore gave the common stockholders the pre-emptive right to subscribe, the security was seen as possessing equity characteristics. According to several writers this right has diminished in frequency in recent years. For example Walker and Baughn assert that "While this right of shareholders to protect their interest in control, voting power, assets, and earnings was once considered basic to common stock ownership, the statutes of most states today give the incorporators a chance to elect whether the pre-emptive right will apply to future issues of stock or securities convertible to stock. . . . If the pre-emptive right is provided, then the corporation must offer its stock and securities convertible to stock to existing stockholders. . . ."[25] The importance of the pre-emptive right, for present purposes, is that it has been well established that the right, when present, will be extended to convertible securities, thus indicating an equity characteristic.

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[25]Ernest W. Walker, and William H. Baughn, Financial Planning and Policy (New York: Harper and Row, 1961), p. 268.

The diminishing incidents of the pre-emptive right is verified by various empirical studies. For 84 corporations issuing convertible securities between 1948 and 1952, Pilcher found that in 37 percent of the cases privileged subscription rights for the common stockholders were required.[26] In a study covering 1949-1959, Broman found that while 35 percent of the new issues were offered to stockholders the corporation was required to do so in only 15 percent of the cases.[27] More recently it was found that 12 of 76, or 15.8 percent, of new convertible bond issues were offered to stockholders. Of those 1 was an exchange issue and for 2 the pre-emptive right was not present. Therefore, in only 9 of 75, or 12 percent of the cases, was the corporation obligated to offer the new convertible issue to the common stockholders

It is apparent that the pre-emptive right test of the debt or equity nature of convertible securities has limited application. When it is present, however, it provides strong evidence of the equity nature of such securities.

Name of Security

The courts have determined that the name of the security is a factor to be evaluated in ruling on the debt or equity nature of the security. Such a test does not appear to be meaningful because it

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[26]Pilcher, op. cit., p. 98.

[27]Broman, op. cit., p. 69.

indicates nothing about the characteristics of the security. If such a test is applied to convertible securities, however, convertible bonds would be debt because bonds are typically debt and convertible preferred stocks would be equity because stocks are typically equity.

Conversion Features

The presence of conversion features has been put forth as evidence of the equity nature of a security. On the basis of that test alone the conclusion about the debt or equity nature of convertible bonds and preferred stocks is obvious.

In addition to the mere presence of conversion features, it has been suggested that the eventual conversion of issues may be of significance in the evaluation process. It was previously concluded, in connection with maturity date, that convertible securities which have a conversion value greater than the redemption price will be converted rather than redeemed. It is not possible to determine when this will occur, but it is known that it will occur, assuming rational investors. Therefore, if eventual conversion is a reflection of equity, it may be concluded that convertible securities with a conversion value above redemption price should be treated as equity securities.

Potential Dilution of Earnings Per Share

A security which has the potential to dilute earnings per share through an increase in the number of shares is considered to have equity characteristics. The most obvious methods for creating a present

or potential increase in the shares used in the computation of earnings per share, which are the residual shares only, are to market a new issue of common stock or issue securities which are convertible into common.

The Accounting Principles Board, the Securities and Exchange Commission, and numerous individual writers in accounting and finance have addressed themselves, with growing concern, to the potential impact of convertible securities upon earnings per share. The views of the Accounting Principles Board were discussed in detail in Chapter 3 and will not be repeated here except to note that in the Board's view residual securities to be used in calculating earnings per share consist of common stock and any other security which ". . . clearly derives a major portion of its value from its conversion rights or its common stock characteristics. . . ."[28] In addition the views of the Board applied only to earnings per share calculations and did not carry over to balance sheet presentation.

The Securities and Exchange Commission recently issued a release concerning earnings per share in which it was stated that "In the opinion of the Commission, companies having only common stock and other residual securities outstanding should present earnings per share figures solely on the basis of equivalent outstanding common shares, including residual securities. In such circumstances the presentation

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[28]American Institute of Certified Public Accountants, Accounting Principles Board, "Opinion No. 9: Reporting the Results of Operations" (December 1966).

of a second earnings per share figure based on outstanding common shares, excluding residual securities, is misleading."[29] The release also contained an evaluation of a convertible preferred stock which was to be issued in a merger transaction:

> . . . the preferred shares were to be convertible into common stock of the merged company on such terms that, assuming conversion of the preferred shares, they had the effect of materially reducing pro forma earnings per share of the company on a merged basis for the most recently completed fiscal year.
>
> It was the opinion of the Commission that the preferred shares in this case should be treated as a residual security in the determination of earnings per share in the financial statements in the proxy statement. In general, if at the time of issuance of a convertible security in an acquisition the terms are such as to result in immediate material dilution to pro forma earnings per share, assuming conversion, then that security should be considered a residual security whether or not a majority of its value may be derived from its conversion rights.[30]

The empirical data presented previously indicates that the concern being expressed about the potential dilution effect of the convertible securities is well founded. In Table 5-11 the increase in common stock upon full conversion of 73 new bond issues was shown to range from 3.2 to 49.9 percent. Furthermore, 15 of the issuing corporations had other outstanding convertibles. During December, 1968, there were approximately 544 outstanding convertible bonds[31] with a

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[29]Securities and Exchange Commission, Release No. 8336 (June 16, 1968).

[30]Ibid.

[31]RHM Convertible Survey (December 13, 1968).

total face value of $10.3 billion of which 141 met the residual equity test prescribed by the Accounting Principles Board. In addition the average market value of these 544 bonds was 191 percent of their estimated straight debt value.

On the basis of having the potential to dilute earnings per share it is evident that a significant number of convertible securities reflect an equity characteristic.

Right to Enforce Payments

On the basis of this legal factor, that is, the right to enforce payments, convertible bonds would be considered debt because the bondholders do have the right to enforce payment of periodic interest and the face value at maturity. Convertible preferred stockholders do not have that right; therefore they would be owners, according to this test.

The fact that convertible bondholders have the right to enforce payments probably should not be given much weight in the evaluation of convertible bonds because the exercise of that right may place the bondholders in a more unfavorable position. If the corporation is unable to make payments when due, enforcement action may result in bankruptcy proceeding. The liquidation settlement may cost the creditor more than the passed payment, particularly when the payment was passed because of temporary financial problems.

Good Business Reasons for Issuing

The data presented earlier concerning interest rates and conversion premium provides evidence that there are good reasons for issuing convertible securities. The interest or dividend rate for convertible securities is typically less than the rate for non-convertibles by a significant margin, and the conversion premium indicates that, upon conversion, common stock will have been effectively sold at a price greater than the price which existed at the time the convertibles were sold. In addition the flotation costs are generally lower for bond issues than for common stock issues. Therefore, if the corporation sells common through the roundabout process of conversion it will reduce flotation costs at the same time it receives a premium over present market price

Despite the evidence which illustrates several good reasons for issuing convertibles these reasons do not provide much insight into the debt or equity nature of the securities. The fact that the corporation may gain considerable advantage from issuing convertibles rather than other securities does not make them debt or equity.

The test is more meaningful in those cases where it can be determined that the financial position of the corporation was such that straight debt could not be marketed. In that event the conversion feature might be added as an inducement to those investors who are willing to speculate on possible capital growth. Such investors may be considered to have an ownership interest in the corporation.

The appraisal comments, concerning new convertible bond issues, which were shown in Table 5-16 suggest that in many cases the speculative possibility for capital growth provides the major incentive for investing in those securities. The greater risk combined with lower yield supports this conclusion.

In his questionnaire survey, Brigham asked the corporations what alternatives were available to them for raising the same amount of funds which they obtained from selling convertibles. His evaluation of the responses was that:

> All companies indicated that common stock could have been sold at net prices ranging from 2 to 5 percent below the market price, the larger discounts being applicable to small firms and to those needing large sums of money relative to the value of their outstanding shares. It is worth noting that neither in the questionnaire responses nor in subsequent interviews with selected firms was a fear indicated that a common stock issue would have brought on the danger of a break in the market price of the stock. The feeling seemed to hold that the market could absorb a stock issue the size of the convertible debenture offering. All but two respondents indicated that straight debt could have been sold. When rates on straight debt were mentioned, they ranged from $\frac{1}{2}$ to 1 percent above those on the convertible issue.[32]

Two points are raised by the above comments. First, it should be noted that common stock could have been sold at a discount ranging from 2 to 5 percent in comparison to the average premium of 12.8 percent, on the recent new issues, which could have been obtained by

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[32]Brigham, <u>op</u>. <u>cit</u>. pp. 50-51.

selling an issue convertible into common. The second point is that the corporations indicated that non-convertible bonds could have been sold with interest rates $\frac{1}{2}$ to 1 percent above those on the convertible issue, yet the data for 63 new issues reflected differences ranging from .85 to 3 percent. Thus it appears that the corporations were overly optimistic concerning their financing alternatives.

In summary, there are several good reasons for issuing convertibles which do not provide clear evidence for evaluating the debt or equity nature of such securities. Other reasons, however, indicate a strong possibility that such securities have a characteristic of ownership.

Identity of Interest Between Creditors and Owners

In those cases where the convertible security issue is offered to the common stockholders, because of the pre-emptive right or otherwise, the identity of interest between the so-called "creditors" and the "owners" is obviously complete. Based upon this factor, which was established by the courts, the convertible security should be treated as equity rather than debt. Where the convertible is issued as a public offering it is not readily apparent whether a substantial portion of the issue is subscribed to by the common stockholders. The corporation, however, could determine this information for evaluation purposes.

In this chapter each of the decision factors has served as a guide for evaluating the debt or equity nature of convertible securities as if each factor was the controlling factor. In the next chapter certain general conclusions will be drawn on the basis of a consolidation of the factors but first it appears worthwhile to give some attention to the question of certainty and the notion of a critical event for financial accounting reports.

Throughout the evaluation process it was made clear that, on the basis of individual factors, a convertible bond could be appropriately classified as debt at one point in time and as equity at another point in time. The significant transition point which emerged was when the conversion value of the convertible equals the call price because at that point several of the factors which indicate debt cease to be operational and equity characteristics arise even though actual conversion has not yet occurred. The empirical data provided sufficient evidence that once this "critical event" occurred conversion would take place, but not necessarily immediately.

The fact that conversion has not occurred, and therefore some degree of uncertainty exists, is not sufficient grounds for failing to recognize the transition from a liability to owner's equity. Accounting has been variously defined and the most commonly quoted definition is the one issued by the committee on terminology of the American Institute of Certified Public Accountants in 1953 which asserted that "Accounting is the art of recording, classifying, and

summarizing in a significant manner and in terms of money, transactions and events which are, in part at least, of a financial character, and interpreting the results thereof."[33] According to that definition accounting is concerned with "events"; therefore the problem is the required degree of certainty which must exist before an event can be recognized.

A committee of the American Accounting Association has asserted that realization is an underlying concept of accounting and that "The essential meaning of realization is that a change in an asset or liability has become sufficiently definite and objective to warrant recognition in the accounts."[34] At another point the committee said that "in some cases there may be a clear indication of a change in an asset or liability although the criteria for realization established in the trade or industry have not yet been met. Such changes not yet realized should be disclosed in financial reports. . . ."[35]

The above committee appeared to place greater emphasis upon materiality than upon certainty because it was pointed out that:

> In the selection of classifications, in planning the extent of summarization, in giving emphasis to or omitting information, and in determining periodic net

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[33] American Institute of Certified Public Accountants, Accounting Research and Terminology Bulletins. (Final edition.) (New York: 1961), Terminology, p. 9. (Emphasis added.)

[34] American Accounting Association, Accounting and Reporting Standards for Corporate Financial Statements, 1957 Revision, p. 3.

[35] Ibid., p. 8.

> income, materiality is often a deciding factor. Materiality, as used in accounting, may be described as a state of relative importance. The materiality of an item may depend on its size, its nature, or a combination of both. An item should be regarded as material if there is reason to believe that knowledge of it would influence the decisions of an informed investor.[36]

It is believed that the amount of convertible securities and the resulting potential dilution of earnings per share are so great as to constitute a material fact on the basis of the above definition.

Additional justification for the recognition of "critical events" was presented by Myers in connection with net profit. He conceded that in many cases the critical event theory would come to the same conclusion as the certainty theory[37] but that where they differed the critical event should be controlling because "It is a theory based on a fundamental economic process rather than upon such frequently used rationalizations as convenience, conservatism, certainty, tax timing, and legal passage of title."[38]

The point at which the conversion value of a convertible bond becomes equal to the call price is therefore seen as an "event," the outcome of which is sufficiently certain to constitute a material fact, which should be appropriately treated in the financial reports in the corporation.

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[36]*Ibid.*, p. 8 (Emphasis added).

[37]John H. Myers, "The Critical Event and Recognition of Net Profit," *The Accounting Review* (October 1959), p. 530.

[38]*Ibid.*, p. 532.

CHAPTER 6

SUMMARY AND CONCLUSIONS

In Chapter 1 it was asserted that this study derived its major significance from the common accounting convention of classification because any system of classification indicates that the data to be classified has certain discernible characteristics which support the selected classification. Therefore, in order to appropriately classify convertible securities, as well as any other accounting data, for financial statement purposes, it was deemed necessary to understand the characteristics of those securities.

There were two major objectives of this study set forth in Chapter 1. The first objective was to test the hypothesis that convertible bonds and convertible preferred stocks have sufficient common characteristics for them to be placed in the same major classification on the statement of financial position rather than being classified as debt and owner's equity, respectively. The second objective was to test the hypothesis that both convertible bonds and convertible preferred stocks should be classified as equity rather than debt. In order to test these hypotheses it was necessary to establish the characteristics of convertible securities and the factors to be considered in determining whether a transaction is debt or equity.

The purpose of this chapter is to summarize the findings of the study and to draw some conclusions relative to those stated objectives.

While the accounting literature, prior to the past two or three years, has contained only brief reference to convertible securities writers in the fields of corporation finance and investment analysis have long addressed themselves to such securities. For that reason, and also because it was expected that the views of those writers would provide insight into the nature of convertible securities, Chapter 2 was devoted to a summation of the viewpoints of several writers in those fields.

It was generally agreed by those writers that convertible securities are issued (1) when the corporation wants to raise capital by issuing bonds or preferred stocks and finds that a "sweetner" is needed to make the issue more attractive to investors, or (2) when the corporation wants to raise capital by issuing common stock but for various reasons decides that securities convertible into common are more advantageous than a direct issue.

Historically the first reason was considered to be the most common motive for issuing convertibles. The implication of a "sweetner" being necessary was that the corporation had an unfavorable capital structure or low earnings or some other inadequacy which created a high risk factor. Therefore, in order to market a senior security it was necessary to give the investor some potential for greater return on his investment. In the case of convertibles the potential results from the right to convert to common and thus enjoy a capital gain, assuming that the market value of common increases. Obviously not

all corporations which issued convertibles were weak financially, because, frequently strong corporations have made use of convertibles.

Many of the writers expressed the belief that the majority of convertible securities issued during the past 20 to 30 years were issued by corporations which had a desire to raise common equity capital and, for various reasons, considered the indirect method of convertibles to provide the most advantageous means of accomplishing their purpose. The following were seen to be the more important of those reasons: (1) to avoid the downward price pressures on the firm's stock which would result from placing a large new issue of common on the market; (2) to avoid dilution of earnings and increased dividend requirements while the expansion program is getting underway; (3) to avoid the direct sale of common stock when the corporation believes that its stock is currently undervalued in the market; (4) to penetrate that segment of the capital market which is unwilling or unable to participate in a direct common stock issue; and (5) to minimize the flotation costs.

From the investor point of view several motives for buying convertible securities were presented: (1) they may be presently fashionable; (2) they combine protection with capital growth possibility; (3) institutions are not restricted in their purchase of securities; (4) they serve as a hedge against stock market declines; and (5) a much larger portion of the purchase price may be borrowed.

Chapter 2 also served to test the hypothesis that convertible bonds and preferred stocks should receive similar accounting treatment in reporting the capital structure of the corporation. The financial writers usually discuss both under the single heading "Convertible Securities" which implies that the discussion of one is automatically a discussion of the other. In order to evaluate this rationale, it was necessary to consider the views concerning non-convertible debenture bonds and preferred stock which they usually treat separately. It was concluded that legally bonds and preferred stocks are two distinct kinds of securities, but, that from the point of view of the financial manager, and on the basis of maturity, claim on income, claim on assets, voice in management, and cost of capital, non-convertible preferred stocks should be considered as debt rather than equity.

The purpose of Chapter 3 was to establish the accounting perspective concerning convertible securities. It was pointed out previously that historically accounting writers have made only brief reference to convertibles. Certain basic tenets of accounting, however, apply to convertibles as well as any other transaction, for example, <u>classification in a significant manner</u> of those financial transactions which are considered to be material in order to provide financial statements which are <u>useful</u> for decision-making, especially investment decision.

The data presented in Chapter 2 and Chapter 5 provided evidence that convertible securities represent a material factor on the statement

of financial position. The number of corporations using convertibles as well as the dollar amount of those issues has been increasing at a substantial rate for several years. As the amount of convertible securities issued and outstanding has grown the potential dilution of earnings per share becomes greater, inasmuch as these securities may be converted. There is also an increased possibility that investors, both present and potential, will be misled by an inappropriate or inadequate classification and reporting of these securities.

Inasmuch as the primary significance of the study was predicated upon the asserted accounting convention of classification it was deemed necessary to determine the source for the classification of claims against the corporation into liabilities and owner's equity. Without this distinction it would not make any difference whether convertible bonds and preferred stocks have similar characteristics and whether they are treated as debt or equity in the financial statements.

The investigation was conducted in terms of some selected general theories of accounting. It was determined that while several general theories, such as the proprietary theory, entity theory, fund theory, social institution theory, commander theory, and economic theories of the firm, have been advanced in the accounting literature the proprietary and entity theories have the most widespread support. Therefore, only these two theories were evaluated for their bearing on the treatment of convertible securities.

According to the proprietary theory the business enterprise is owned by some specified person or group. The ownership interest

may be represented by a sole proprietor, a partnership, or by a number of stockholders. The assets of the business belong to these people and any liabilities of the business are their liabilities. Revenues received by the firm immediately increase their net interest in the firm which is the total assets minus the total liabilities. Likewise all expenses incurred by the firm decrease their net interest. This is the same thing as saying that profits become the property of the owners, and not the firm, at the time they are earned, whether or not they are distributed.

The proprietary theory places the proprietors at the center of interest and asserts that their viewpoints should be the ones reflected in accounting activities. Everyone who ascribes to the proprietary theory accepts the preceding proposition, but not everyone agrees on the composition of the proprietorship. Some accountants adopt the view that only the common stockholders have an enterpreneurship position in the corporation because preferred stocks, as well as bonds, reflect a hiring of capital services by the common stockholders, and therefore neither of these represents a proprietary interest. Other accountants adopt the view that all long-term investors, including bondholders, preferred stockholders, and common stockholders, constitute the proprietorship interest of the corporation.

The entity theory also reflects a point of view toward the business enterprise and the people concerned with its operation. Those who hold the entity viewpoint place the firm, rather than the

owners, at the center of interest. The essence of the theory is that the owners, and this usually has reference to stockholders, as well as creditors are outside the corporation. The corporation exists as a separate and distinct entity apart from those who contributed the capital of the corporation. The assets and liabilities belong to the entity and not the owners. As revenue is received it becomes the property of the entity. Likewise, expenses incurred are obligations of the entity. Any net profits are the property of the entity and accrue to the stockholders only when a dividend is declared. The undistributed profits, if any, still belong to the entity.

The discussion of the various general theories of accounting provided sufficient evidence that the adoption of a particular viewpoint significantly influences the accounting treatment of convertible securities. The adoption of the entity theory, which treats all capital contributors as being outside the corporation, means that, in effect, all claims against the assets of the corporation are creditor claims. Therefore, an investigation of the debt or equity characteristics of convertibles would be meaningless.

On the other hand, the determination of whether convertible security holders are creditors or owners becomesan essential factor when the proprietary theory is adopted. The more traditional interpretation of this theory includes preferred and common stockholders in the proprietor group and bondholders in the creditor group. The addition of the conversion feature to bonds and preferred stocks did not

alter the classification. If the narrow interpretation of the proprietorship interest, which includes only common stockholders, were followed both convertible bonds and preferred stocks would be treated as debt. The broad interpretation of the proprietorship, which includes all long-term investors, would require that both convertible bonds and preferred stocks be treated as equity.

In brief, the debt-equity classification possibilities for convertible securities which would be supported by a particular viewpoint were: (1) no classification; (2) both treated as debt; (3) both treated as equity; and (4) convertible bonds treated as debt and convertible preferred stocks treated as equity. Thus, having established four classification possibilities it appeared necessary to give some consideration to which of the viewpoints is most commonly reflected in current accounting practice and on the basis of the evidence presented it was concluded that the proprietary theory and the resulting possibility (4) above is most frequently adhered to by accountants in the preparation of financial statements.

The remainder of Chapter 3 was concerned with summarizing and evaluating the views expressed by several accounting writers in reference to convertible securities, with primary attention given to the pronouncements of the Accounting Principles Board. Thus far the Board has discussed convertibles in four opinions and an exposure draft of another opinion.

Initially the Board was concerned with the potential dilution of earnings per share created by convertible securities and with the

financial position statement treatment of that portion of the proceeds attributable to the conversion feature. The Board thus recognized that the market price of a convertible bond was composed of two factors; the straight debt value and a premium for the conversion feature. In the opinion of the Board the premium should be treated as paid-in capital on the statement of financial position. On the other hand, when dealing with earnings per share calculations the Board expressed the opinion that when the security derived more than 50 percent of its value from the conversion feature the entire issue should be treated as a residual security. There was no explanation for the position that under some circumstances a portion of the proceeds from the sale of convertible bonds should be treated as equity for financial position statement purposes and totally as equity in calculating earnings per share information on the income statement.

After one year the Board chose to suspend the requirement that the proceeds attributable to the conversion feature be recorded as paid-in capital while it conducted further study. In a recent new opinion the Board renounced the original view and declared that no portion of the proceeds should be attributed to the conversion feature. The Board was motivated partly by the practical difficulties involved, but mostly by what it considered to be the inseparable debt and equity characteristics of convertible securities.

The Board's previous views concerning earnings per share calculations, when convertibles are present, were expanded in the exposure draft. For earnings per share purposes only, residual securities,

according to the Board, are those which clearly derive a substantial portion of their value from their conversion features or other common stock characteristics, and that is determined by the relationship between the market value of the convertible and its straight investment value.

The rationale of the Board is not at all clear to this writer. On the one hand the Board asserts that the debt and equity characteristics of convertible bonds are inseparable. On the other hand, the residuality of a convertible security is determined by the relationship between investment value and the market price. If this test can be validly applied in the second instance there appears to be no reason why it could not be applied in the first case. The obvious conclusion seems to be that while the Board recognizes the strong equity characteristic of many convertible bonds, and thus requires their inclusion in earnings per share calculations, it is not yet prepared to break with tradition to the point of classifying a portion, or all, of a so-called bond issue as equity on the statement of financial position.

This study was concerned with establishing the characteristics of convertible securities in order to determine whether they were more nearly debt or equity. Such a determination obviously is not possible without a reference frame as to what constitutes debt or equity. The purpose of Chapter 4 was to derive that reference frame. The factors which should be evaluated in determining the debt or equity classification of a particular security were developed from accounting,

finance, and legal sources. The factors were as follows: (1) maturity date; (2) claim on assets; (3) claim on income; (4) voice in management; (5) maturity value; (6) intent of parties; (7) pre-emptive right; (8) name of security; (9) conversion feature; (10) potential dilution of earnings per share; (11) right to enforce payments; (12) good business reasons for issuing; and (13) identity of interest between creditors and owners.

It was not asserted that the above factors comprise an all-inclusive list of factors which may in some way relate to the determination of debt or equity. On the other hand, because the factors were determined from several recognized accounting, finance, and legal sources it is believed that no significant factors were omitted. No effort was made to establish the relative weight of each of the factors; however, when the empirical data which was collected in Chapter 5 were evaluated on the basis of each of the factors, it appeared that in a given case certain of the factors may be less significant than others.

In order to illustrate the evaluation process and to show the different results which may be obtained for specific issues, two hypothetical convertible bond issues will be considered: one which supports treating the entire issue as equity on the statement of financial position and one which supports debt treatment.

In the first case assume that the issue was a $50 million, 5 percent convertible subordinated debenture for which the common

stockholders had the pre-emptive right to subscribe. The bonds are callable at 105, decreasing to 100 at maturity 25 years later; each bond is convertible into 20 shares of common at $50 per share. The common stock is currently selling at $80 which gives a conversion value of $1600. The market price of the bonds is also 160 while the approximate straight debt value is 75.

In this case the presence of a maturity date and maturity value, which is supposed to indicate debt, has no operational significance because the date will not be reached and the bonds will not be redeemed at their maturity value. The reason for this conclusion is that once the conversion value exceeds the call price or maturity value the bonds will not be allowed to mature. The corporation may call the bonds and force conversion whenever it chooses, and the bondholders may convert whenever they desire and they will certainly convert prior to the redemption date, whether that be the maturity date or call date. To do otherwise would mean receiving 105 or less for their bonds when they could obtain common shares with a market value of 160.

On the basis of the bondholders claim on assets the debt or equity nature of the bond is uncertain. The classification depends more upon a point of view than characteristics. First of all this factor is derived from the legal treatment of liquidation proceeds. There are six major levels of claims involved in the distribution of those proceeds: (1) priority creditors; (2) claims secured by specific assets;

(3) unsecured claims; (4) subordinated unsecured claims; (5) claims of preferred stockholders who have preference as to assets; and (6) claims of common stockholders. One viewpoint holds that all claims other than the first are equity while another viewpoint holds that all claims except the last are debt. According to the first view the convertible bond issue would be equity whereas under the second it would be debt. In any event this factor appears to be of minor significance because liquidation is unlikely with a company which is doing well enough for the market price of its stock to move up to the point where the convertible has a market value of 160.

The bonds have a fixed interest rate and therefore a known periodic claim on income which indicates that they are debt securities. It is assumed, however, that the market value is 160 because of earnings; therefore the bondholders have the same total, and fluctuating claim on earnings as the common stockholders.

The bondholders do not have a direct voice in the management of the corporation, but they can obtain a voice at any time they choose by converting their holdings into common stock. The fact that they have not converted suggests that having a voice is not as important to them as some other factors.

It is not possible to say much about the intent of the parties in a hypothetical case, but in practice the accountant should be able to determine the corporate intent in issuing a convertible security. It may be reasoned that when a rational investor is willing to buy

a convertible bond which has greater risk and pays lower interest than a non-convertible his intent is to acquire a potential for capital growth, an equity characteristic.

In this hypothetical case, as is quite usual, the common stockholders had the pre-emptive right to subscribe to the convertible bonds, therefore the identity of interest between the owners and bondholders is presumed to be the same. Both of these factors are seen as indication of an equity security.

The name of the security has been established by the courts as one of the factors to be evaluated and on that basis this convertible bond would be a debt.

The convertible security under discussion certainly meets the test of having conversion features, an obvious redundancy, but more importantly the market price is such that the holders can convert whenever they choose and the corporation can force conversion at its will by calling the issue. It is also clear that there is a present potential for dilution of earnings per share because conversion can occur, and in addition the market value relationship to the straight debt value is such that the Accounting Principles Board would consider this issue to be a residual security for purposes of calculating earnings per share. Therefore, this particular issue has two additional equity characteristics.

The convertible bondholders have the legal right to enforce payment of their periodic interest and the face amount at maturity. Neither

of these rights appears relevant to an issue which will not reach maturity and which has attained a market value of 160 because of the success of the corporation.

There may have been several good business reasons for the corporation to issue a convertible security and again the accountant should be able to evaluate those reasons.

In the second hypothetical example, which will illustrate support for treating the issue as debt the same assumptions apply except that it is now assumed that there is no pre-emptive right and the conversion value is 75, the same as the straight debt value.

In this case all of the factors except the following reflect debt: intent of the parties; conversion feature; good business reasons for issuing; and identity of interest between creditors and owners. The conversion feature is meaningless under the circumstances because conversion would not occur. The other three may have particular relevance if the stockholders are the ones who acquired the bonds despite the absence of the pre-emptive right. The corporation may have been in a position where no one other than the present owners would risk an investment and bonds were used to take advantage of the tax-deductibility provision. Under such circumstances the courts might rule that the security was equity despite the fact that a majority of the factors evaluated reflected debt.

On the other hand, an entirely different set of circumstances may exist which reduces or eliminates the relevance of those three

factors, in which event the security should be treated as debt on the statement of financial position.

In the two hypothetical cases there were only two assumed differences: conversion value and the pre-emptive right, yet one was determined to be appropriately classified as an equity security and the other as a debt security. In the opinion of the writer the controlling factor in arriving at the proper classification, in these cases, was the conversion value.

In the first example the conversion value was sufficiently great to effectively eliminate maturity date and maturity value as debt characteristics; the claim on income reflects both a fixed periodic claim and a residual interest; and because conversion was possible the potential for earnings per share to be diluted was present. On the other hand, the fact that the market value of the common stock was below the conversion price in the second example resulted in all of those factors being reversed.

The first objective of this study was to test the hypothesis that convertible bonds and convertible preferred stocks have sufficient common characteristics for them to be placed in the same major classification on the statement of financial position rather than being classified as debt and owner's equity, respectively. Contrary to the views of those finance writers who suggest that preferred stocks are like debt, it is concluded, based upon the evidence presented in this study, that the two securities are different when the conversion

value of the common stock into which they are convertible is below the call price of the securities.

On the basis of the prescribed set of decision factors for determining debt or equity and the empirical data presented in this study it is concluded that convertible preferred stock should rarely, if ever, be classified as debt. The strongest debt characteristic is a fixed claim on income to the extent of the dividend rate, which is usually cumulative. Convertible bonds, on the other hand, are believed to be most appropriately treated as debt prior to the time when conversion value exceeds the call price.

The fact that convertible bonds and convertible preferred stocks at times have dissimilar characteristics does not negate the second objective of this study which was to test the hypothesis that both should be classified as a part of owner's equity on the statement of financial position, but it is necessary to qualify the conclusion.

On the basis of the evidence presented it is concluded that those convertible bonds whose conversion value exceed the call price and all convertible preferred stocks should be classified as owner's equity on the statement of financial position since a preponderance of the decision factors indicate equity. Once that value has been attained the characteristics of convertible bonds undergo a major transition. The maturity date and maturity value no longer have significance as a debt characteristic because the corporation can either call the bonds and force conversion or the investors can voluntarily

convert, which they would certainly do rather than have their bonds redeemed at the lower price. The prior claim on assets upon liquidation is unimportant when the company is performing well enough for its stock price to be increasing.

In addition to the above factors which lose their significance when the conversion value exceeds the call price of the bond there are certain positive changes. First while the periodic claim on income is fixed by the interest rate, the bondholders have an interest in the retained earnings which they can acquire whenever they desire and the value of their investment reflects that interest by keeping pace with the market value of the common stock. Second, the conversion privilege becomes operational and the potential dilution of earnings becomes a real possibility because the corporation can call the bonds anytime it chooses knowing that conversion will occur when the call notice is issued.

The significance of this potential dilution is reflected by the amount of outstanding convertible bond which should be classified as equity. In Chapter 5 reference was made to the 544 outstanding convertible bond issues which were being actively traded at the end of 1968. When the conversion value of those 544 bonds was compared to an estimated average call price of 105 it was found that 311 of the issues, amounting to $3,748 million, had conversion value in excess of the call price. Furthermore, the evidence presented concerning the exercise of the call provision indicates that many companies bring about

conversion rather quickly once it becomes feasible. Whether the corporation exercises its right immediately is immaterial to the conclusion. The important point is that once the conversion value is above the call price the corporation has the power to transform the convertible bonds into common stock, assuming, of course, that the investors are rational.

In the practical application of the above general conclusion it may be desirable to add a cushion to the critical point of equality between conversion value and call price. Otherwise fluctuations in the market price of the common stock could result in the bond being frequently alternated between debt and equity classification on the statement of financial position. The size of the cushion could be based upon the probability of market fluctuations for the individual company. This practical adjustment in no way negates the general conclusion, rather it serves only to minimize the frequency of changes in the statement of financial position classification of convertible bonds.

APPENDIX

LIST OF COMPANIES ISSUING CONVERTIBLE BONDS DURING 1968

1. APL Corporation
2. Allegheny Airlines, Inc.
3. Allied Supermarkets, Inc.
4. Alloys Unlimited, Inc.
5. American Broadcasting Company, Inc.
6. American Export Industries, Inc.
7. American Financial Corp.
8. American Hoist and Derrick Co.
9. Apco Oil Corp.
10. Ashland Oil and Refining Co.
11. Baxter Laboratories, Inc.
12. Becton, Dickinson and Co.
13. Beech Aircraft Corp.
14. Belco Petroleum Corp.
15. Burroughs Corp.
16. Carolina Telephone and Telegraph Co.
17. Ceco Corporation
18. Chase Manhattan Banks (N.A.)
19. Chelser Industries, Inc.
20. Chemical Bank New York Trust Co.
21. Chris-Craft Industries, Inc.
22. Condec Corporation
23. Crown Central Petroleum
24. Di Giorgio Corp.
25. Diversified Metals Corp.
26. Eastern Air Lines, Inc.
27. Eckerd Drugs of Florida, Inc.
28. El Paso Natural Gas Co.
29. Fibreboard Corp.
30. Fidelity Corporation
31. General Fireproofing Co.
32. Girard Trust Bank (Phila.)
33. Gordon Jewelry Corp.
34. Harris Trust and Savings Bank (Chicago)
35. Indian Head Inc.
36. J. C. Penny Co. Inc.
37. Jostens, Inc.
38. Lincoln Telephone and Telegraph Co.
39. Lone Star Cement Corp.
40. Lucky Stores, Inc.
41. McDonald's Corp.
42. Medusa Portland Cement Co.
43. Mesa Petroleum Co.
44. Metro-Goldwyn-Mayer, Inc.

45. Mohawk Airlines, Inc.
46. National Bank of Detroit
47. National Can Corp.
48. National City Lines, Inc.
49. New Jersey Bank and Trust Co.
50. OKC Corp.
51. Ogden Corp.
52. Oneida Ltd.
53. Ozark Air Lines, Inc.
54. Pepsi-Cola General Bottlers, Inc.
55. Piedmont Aviation, Inc.
56. Pueblo Supermarkets of New York, Inc.
57. Reading and Bates Offshore Drilling Co.
58. Restaurant Associates Industries, Inc.
59. Riegel Textile Corp.
60. SCM Corporation
61. Santa Fe Industries, Inc.
62. Saturn Industries, Inc.
63. Sun Electric Corp.
64. Sunstrand Corp.
65. Susquehanna Corp.
66. United Nuclear Corp.
67. United States Finance Co. Inc.
68. United States Smelting and Refining Co.
69. United Utilities, Inc.
70. Walt Disney Productions
71. Western Air Lines, Inc.
72. White Motor Corporation
73. Whittaker Corp.
74. Witco Chemical Co.
75. Wyle Laboratories
76. Zapata Off-Shore Co.

LIST OF COMPANIES ISSUING CONVERTIBLE
PREFERRED STOCKS DURING 1968

1. Allied Products Corp.
2. American Electronics, Inc. (3 issues)
3. Baltimore Gas and Electric Co.
4. Bangor Punta Corp.
5. Blue Bell, Inc.
6. City Investing Co.
7. Colt Industries, Inc.
8. Combustion Engineering, Inc.
9. Consolidated Edison Co. of New York
10. Crowell, Collier and MacMillan, Inc.

11. Cyclops Corp.
12. Guidance Technology, Inc.
13. Gulf Resources and Chemical Corp.
14. Gulf and Western Industries, Inc. (3 issues)
15. Indianapolis Power and Light Co.
16. Jim Walters Corp.
17. Kaman Corp.
18. Koehring Co.
19. Management Data Corp.
20. Mesa Petroleum Co.
21. Pennzoil United, Inc.
22. Pratt and Lambert Inc.
23. Public Service Co. of New Hampshire
24. Ralston Purina Co.
25. Reliance Electric and Eng. Co.
26. Southern California Edison Co.
27. Sperry-Hutchinson Co.
28. Stauffer Chemical Co.
29. U. S. Gypsum Co.
30. U. S. Industries, Inc.
31. Wallace Murry Corp.

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BIOGRAPHICAL SKETCH

Levis Duval McCullers was born August 18, 1936, at Mayo, Florida. In May, 1954, he was graduated from Suwannee High School, Live Oak, Florida. From 1954 until 1965, he was employed by State Farm Mutual Automobile Insurance Company at Jacksonville, Florida. From 1958 until 1964, on a part-time basis, he attended Jacksonville University from which he received the degree of Bachelor of Science in December, 1964. In May, 1965, he enrolled in the Graduate School of the University of Florida from which he received the degree of Master of Arts in April, 1966. From May, 1966, until the present time he has pursued his work toward the degree of Doctor of Philosophy. He was the recipient of a National Defense Education Act Fellowship from September, 1965, until August, 1968. From September, 1968, until the present he taught in the Department of Accounting.

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This dissertation was prepared under the direction of the chairman of the candidate's supervisory committee and has been approved by all members of that committee. It was submitted to the Dean of the College of Business Administration and to the Graduate Council, and was approved as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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